AMERICAN AGRICULTURIST.

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TO POSTMASTERS AND OTHERS.

UPON an examination at this office of the May number of the "American Agriculturist," printed in New York, at 121 Fulton street, it is decided, under the approval of the Postmaster General, that said publication is a newspaper, within the intent and meaning of the 2d and 16th sections of the Post-office act of Congress, of 3d March, 1845, being in its superficial dimensions not more than 1,900 square inches, and "conveying intelligence of passing events" in that department of the affairs and business of society to which the publication is devoted

S. R. HOBBIE,
First Dpt. P. M. Gen'l.

Post-Office Department, Contract Office, May 28th, 1849.

WORK FOR AUGUST, NORTH AND WEST.

General Remarks.—Any portion of the work omitted to be done in July, or impracticable to be performed from the state of the climate, as recommended in our last number, may be accomplished this month, such as *cutting bushes and destroying weeds, composting manure, draining wet lands, sowing turnips, plowing for winter wheat, topping Indian corn, &c., &c.*

Gathering Seeds.—Now is the time to save many of your field and garden seeds—a duty always to be attended to with the utmost caution and care. The finest plants of each kind, having the largest seed vessels, should be selected, and the seeds should be gathered as soon as possible after they are ripe, and always on a fair day. After drying them in the shade, which will generally require but a few days, and separating them from the seed vessels, or husks, they should be barreled, bottled, or boxed up, and stored in a cool, dry place, until they are ready for sowing or for sale. Be sure

and save only the best, so that your future crops may improve rather than run out.

Sowing Winter Rye.—The earlier, this month, you sow your winter rye, the better it will be for the crop, as the roots will more firmly set, and better be enabled to withstand the pressure of frosts and thaws. Remember to plow deep, and thoroughly pulverize the soil. The quantity of seed may vary from one to two bushels per acre. If convenient, it would be preferable to sow and plow in each acre, 200 lbs. of Peruvian guano, well mixed with a bushel of plaster of Paris. After the seed is in, the ground should be harrowed and afterwards rolled.

Preparation for Sowing Winter Wheat.—As the period is approaching for sowing winter wheat, all necessary arrangements should seasonably be made. In breaking up the ground, let it be done thoroughly, and if guano be applied, it should always be plowed under to the full depth of the furrow, say from six to nine inches, according to the depth of the soil. Where only a single crop be the object, 200 lbs. per acre will be sufficient; but, where the permanent improvement of the soil is in view, 400 lbs. per acre will be necessary. In either case, a bushel of plaster of Paris may be mixed with the guano. The ground, previous to being sown, should be made as fine as harrow and roller can make it, as the more perfect the pulverization to which it is reduced, the better will be the chance for the wheat plants to thrive, and in the end the greater yield of grain.

Hoeing Potatoes.—If your late-planted potatoes have not already received their second hoeing, let it be done the early part of this month without delay.

Kitchen Garden.—Finish planting lettuce, Savoy and other cabbages for autumn or winter use. Sow turnips, spinach, and small salading early this month. Plant a crop of late celery, which continue to cultivate by drawing up earth. Sow watercresses in moist ground, which can afterward be overflowed with water. Hoe melons, cucumbers, and Lima beans.

Fruit Garden and Orchard.—This month is generally regarded as the proper time for budding apples, pears, plums, cherries, nectarines, apricots, almonds, walnuts, &c. Keep the ground about your nurseries, and grape vines loose and clean.

Flower Garden and Pleasure Grounds.—Transplant from seed beds the various kinds of flowers that were omitted last month. Plant the bulbs that have begun to vegetate, such as amaryllises, lilies, &c. Keep the earth loose about dahlias. Take up, separate, and transplant the roots of peonias and other tuberous-rooted plants, the leaves of which have decayed. Plant the seeds of polyanthuses, cowslips, &c. Clip hedges; mow lawns; clean gravel walks.

WORK FOR AUGUST, SOUTH.

General Remarks.—Several of the hints given this month for the work north and west will also apply to the south, as *cutting bushes and destroying weeds, composting manure, draining wet lands, sowing turnips, and gathering seeds.*

Picking Cotton.—About the middle of this month, cotton will have sufficiently ripened to burst its covering, and will bear to be picked. In the mean time, make it a matter of special attention, to have everything in readiness, in order that there may be no detention. Examine baskets, sacks, gin stands, running gear, presses, &c., and if anything requires repairing, let it immediately be done. Should the cotton be tardy in ripening, open the branches to the sun, that a freer circulation of air may pass through them, which will cause the bolls to open sooner, and not rot in consequence of rain or dew.

Cutting Fodder.—Cut crab grass and throw it into heaps, there to remain for a day, and then into heavy windrows until cured. Gather fodder from late-sown corn.

Harvesting Rice.—As soon as three or four of the lowermost grains of your rice begin to turn yellow it may be cut and carefully stacked. Be careful to shut off the water from the fields, a week or ten days before you begin to cut.

Harvesting Tobacco.—Tobacco plants should be cut as soon as they have come to maturity. This may be known by the leaves becoming mottled, coarse, and of a thick texture, and gummy to the touch. The ends of the leaves, also, by being doubled, will break short, which they will not do to the same extent when green. They should not be cut in wet weather, as then, they lose their natural gumminess, so necessary to be preserved. When the harvesting is to commence, procure a quantity of forked stakes, set upright, with a pole, or rider, resting on every two stakes, in readiness to support the tobacco, and keep it from the ground, when cut. The plants should be cut obliquely, even with the surface of the ground, and should receive two or three smart raps with the back of the knife, in order to remove the sand, or soil, from the leaves. Then they may be tied two stalks together, and gently placed across the riders, or poles, where they should remain in the sun until they become wilted. They should then be carried into the drying house, and strung upon frames, leaving a small space between each plant, that air may circulate freely, and promote the drying. As the latter process advances, the stalks may be brought closer to each other, so as to make room for others. Exclude, as far as possible, all damp air, and be equally guarded against the admission of all drying winds, so that the operation may not be too rapid, unless the season be rainy, when, the sooner it is effected, the better. As soon as the middle stem becomes quite dry, the leaves may be stripped and put in bulk to sweat. This may be done more conveniently in cloudy weather, when the leaves are moist, and more easily handled. The leaves should be assorted according to their qualities, with their stems all kept in one direction, in the bulk, which should be two or three feet high, and of any convenient length and breadth. To guard against the tobacco becoming overheated, and to equalize the fermentation, or sweating, after the first twenty-four hours, place the outside leaves in the middle of the pile, and those of the centre to the outside of the bulk. By doing this, once or twice, taking care to exclude the air from the pile, and leaving it in this state for about forty days, the tobacco will acquire the odor and other qualities desired.

Kitchen Garden.—Sow beets, carrots, dwarf, early and pole beans, southern and northern cabbages, cauliflower, lettuces, turnips, broad-leaved endive, lentils, mustard, roquet, parsneps, radishes, (long and round,) spinach, peas, and split onions. Transplant cabbages, tomatoes, and celery. Water them in the evening, if the weather be dry.

Fruit Garden, Shrubbery, &c.—Inoculate fruit trees of this year's growth; procure none but the best and the choicest varieties. Prune peach trees and other stone fruits. Plant out fig trees, and shade their roots with straw.

TO WOOL GROWERS.

A PURSE of $100 having been offered for the 25 best Merino ewes, and the 25 best Merino lambs, under one year old, by a private gentleman, the exhibition to be at the Fair of the New-York State Agricultural Society, I purpose to be a competitor in that exhibition, against any and all flocks of Merino sheep that may be brought against me. I give this out, not as a challenge, but simply as a proposition, which shall call forth my brother farmers throughout the length and breadth of the land. My object is to convince myself where the best Merino sheep are. If I have not got them, I must have them; for I am resolved to improve from the best, whatever may be the cost. By a fair and manly competition, we may compare the best specimens from the best flocks; and by that means learn where the best sheep are to be found.

For a series of years, I have spared no pains and expense to possess myself of the best sheep of the pure Merino race, the United States could afford, or to be found in the Old World. It remains to be seen whether these efforts have been successful; and to this end, I earnestly invite the Merino wool growers, throughout the Union, to meet me on the show ground, at Syracuse, next September, in honorable competition, to compare the 25 best ewes, and the same number of lambs from our respective flocks, and thus add another feature to this somewhat national exhibition, which will be made at the New-York State Fair. A. L. BINGHAM.

Cornwall, Vt., July 16th, 1849.

NATIONAL CONVENTIONS OF FRUIT GROWERS IN THE UNITED STATES.

WE have noticed a good deal of personal feeling on the subject of the title claimed by two very worthy assemblages of fruit growers, one of which met in Buffalo, N. Y., in September, and the other in the city of New York, in October last. Two Hotspurs are already in the field, and if the spirit continues, we may soon have enough to tax all the valor of Jack Falstaff to "pepper," into silence. For our own part, we say, let them both be *Nationals*, "an' they will." We have not less than ten thousand Generals, thrice the number of Colonels, and any quantity of Majors, Captains, &c. Then, why not two or more *National* bodies of fruit growers?

But badinage apart. We think, of all absurdities, this idea of a set of enterprising, liberal-minded horticulturists, getting by the ears about a name, is the most ridiculous. The peculiar folly we note about it, (and it is an egregious one,) is, that any intelligent set of men should have adopted it at all. We might with equal propriety get up a National Society of the occupants of Latitude 40° to 41° inclusive, or 30° to 35°. The state of Rhode Island, which embraces a territory of about 40 miles square, (we think our juvenile geographies gave it as 37 by 47,) might very well have its *State* Convention for growing fruit, without committing any great error, and, perhaps, Delaware. But Massachusetts could not consistently, much less New York, nor the whole of any two adjoining states.

This is self-evident to any person of intelligence and observation. Take for instance, the grape in its most favorite clime. You will find it in one vineyard, producing a wine quite unlike that in one adjoining, though of the same variety; and the ripened fruit on one side of a hill would hardly be recognized as the same grown upon its opposite. This is true of the peach, when produced at the north and south, in our own country. Scarcely any apple is more tempting than the Rhode-Island Greening, of New England, yet we have seen many of them in western New York, that were utterly insipid and worthless as a delicacy or luxury to a practised taste.

Nothing is more certainly established by the actual experience of every intelligent man, who has travelled through our country, or even had much experience on his own farm, than the constantly varying character of many of our fruits. A tree will change materially in the flavor of its product, even when standing still. Youth, maturity, and age, in the tree, each make a difference—its health or disease—seasons—richness or poverty of the soil—peculiarity of manures, &c. It is true, that amid all these changes and vibrations in fruit, there are still numberless general characteristics and principles, which are applicable, with slight modifications, throughout the country, and to ascertain and clearly define these would certainly be a desirable object, if there be sufficient leisure in such a body, as would be likely to be brought together. But we should much prefer relying on the deliberate opinions and researches of one man of science and experience, who could weigh his own opinions carefully, and who would assume the entire responsibility of giving them to the public, than on the hurried decisions that were made in a mixed assembly, *viva voce* or by ballot. Whenever we come to define the exact character or comparative value of any one species of fruit, for all parts of the Union, we shall have approached the very climax of absurdity.

We say then, nor claim oracular wisdom by the assertion, but only the expression of the most ordinary and obvious common sense, let there be as many conventions as there is spirit or zeal for assembling; but let each give to itself a name indicative of its locality and the specific objects for which it is called together. Tell us whence the delegates come, and the relative value of the different varieties of fruit in particular sections. Let them give us their experience for certain latitudes and longitudes; describe to us the latitude, soil and treatment; and if this shall have been intelligently and carefully done, we shall have precise, definite, and local data, which will be of vast general and national benefit, *because it has been both local and detailed.*

THE COW—HER DISEASES AND MANAGEMENT.—No. 15.

Looseness, or Scouring.—This disease is not unfrequent with cattle at all seasons of the year, as it arises from a variety of causes. It is very liable to proceed from an acrid state of the bile, which the appearance of the stools will show, although it may be produced from over-heating, the fluids being driven from the surface towards the bowels; but it more frequently arises from errors in diet than from any other cause. Thus, food given hotter than it ought to be will occasion the complaint; and a want of proper nourishment will produce the same effect. Hence, cows long denied their customary support are generally afflicted by this malady.

The disease consists in a frequent discharge of the contents of the bowels, which varies in its appearance during its progress, being generally of a liquid form, sometimes slimy, at other times black and bilious, and occasionally of a watery, frothy, consistence. The animal has generally a bad appetite, the pulse weak and low, the skin dry, soon becoming tight to the ribs, the countenance appearing dull, and accompanied by a degree of slow fever with much thirst. On opening the body, after death, the gall bladder will be found full of a thin, acrimonious fluid, the part of the bowels near it showing several putrid spots, and the whole intestines will be more or less inflamed. Besides this, the ulcerations are sometimes so extensive that callous pieces, equal in size to one's fist, have been found in the bowels, which has given rise to the names of "rottenness," and "garget in the guts." When laboring under this disease, cattle are very sensible to the impressions of weather, and generally seek shelter, or cover, wherever it can be found.

Whatever the cause of this malady may be, the commencement of the treatment should take place first, by clearing out the bowels, and discharging any acrid matter contained in them, which may tend to keep up irritation. This may be done by the use of the following saline purge, notwithstanding some degree of looseness may prevail at the time:—

Take of Epsom salts, ¼ lb.; saltpetre, 1½ oz.; camphor 3 drachms; coriander and cumin seeds, ¼ oz., each.

Mix the whole into a powder, and give it to the animal in two quarts of water gruel, sweetened with half a pint of molasses. When this medicine has operated, remedies opening to the skin may be administered and continued, among which the following is recommended:—

Take of camphor 1½ drachms; salt of tartar, 3 oz.; saltpetre, ¾ oz.; Mithridate, ¼ oz.

To be mixed and given at one dose in two quarts of water gruel, in which one ounce of soap has been previously dissolved. If the symptoms of the disease demand it, the dose should be repeated one or twice a-day. As soon as the stricture or dryness of the skin is removed by the above-named medicines, and the complaint is only kept up by the weakness of the bowels, the cure then, but not till then, may be trusted to the use of the following astringent:—

Take diascordium, 1½ oz.; dragon's blood, 2¼ oz.; powdered ginger, 1½ oz.; grains of Paradise, 3 drachms.

To be mixed and given at one dose in a pint and a half of the following decoction, and repeated once a-day:—

Take of logwood chips, 4½ oz.; camomile flowers, 3 oz.; valerian, ¾ oz.,

which must be boiled in three quarts of water till one half is wasted by evaporation.

The above mode of treatment will always succeed whenever the disease has not advanced so far that the bowels of the animal have arrived at a state of ulceration, in which case, it commonly proves fatal, and she lives till she is reduced to skin and bone.

During this complaint, the cow should be kept particularly warm, and both her food and drink should be given with the chill just taken from them. The food should also be of the same nourishing kind so often recommended on former occasions, as warm washes of malt, Indian meal, &c.

MR. HOLBERT'S DAIRY, CHEMUNG, N. Y.

We copy the following statement on butter making from the Transactions of the New-York State Agricultural Society, for 1848:—The dairy and farm to which reference is made belongs to Mr. John Holbert, and is located in the town and county of Chemung, New York, adjoining the Pennsylvania state line; elevation about 800 feet above tide water, and at 42 degrees north latitude.

The farm contains 200 acres of land, which was farmed the past season as follows:—I have kept and milked 40 cows, and my grain pastures and meadows are as follows:—24 acres of wheat; 8 of buckwheat; 10 of oats; 20 of corn and potatoes; 2 of summer fallow; 40 of meadow; 74 of pastures; 22 of wood and waste land. The soil is a gravelly loam, with a slight mixture of black sand; subsoil the same. I use no roots nor slops for my cows; all that I feed them is hay and grass, and corn stalks. My pastures are clover and Timothy, and hay the same; and my meadows produce from one to two and a half tons per acre per annum. I sow plaster on all my pastures and meadows every year, and use the Cayuga plaster.

Breed of Cows.—My cows are generally the common breed. I have a few that have a slight mixture of Durham blood in them. Their ages will range from three years old to twelve. I prefer a cow not less than five years old for the dairy, and as much older as she winters well. I change pastures often, and think it a good plan to change twice a week. Too much care cannot be taken to have your cows well watered and salted. I keep a large watering trough in my cow yard, where I very frequently observe cows drinking large quantities of water immediately after coming from the brook. I keep salt lying in the yard the year round.

Making Butter.—I take care to have my cellar thoroughly cleansed and whitewashed early every spring. I keep milk in one cellar and butter in another. Too much care cannot be taken by dairymen to observe the time of churning. I usually churn from one hour to one hour and a half. I put from one to two pails of cold water in each churn, before commencing to churn, and one pail more in each, when nearly done, in order to thin th

milk, and make it produce all the butter it contains. When done, take the butter out, wash it through one water, then set it in the cellar and salt it ; then work it from three to five times before packing. Butter should not be made quite salt enough until the last working. Then add a little salt, which makes a brine that keeps the butter sweet. One ounce of salt to a pound of butter is about the quantity I use. I pack the first day, if the weather is cool ; if warm, the second day. If the milk is too warm when churned, the quantity of butter will be less and the quality and flavor not so good as when it is cool at a proper temperature. I have always worked my butter by hand. Last fall, I bought a butter worker, but I disapprove of its use entirely, and recommend the hand ladle in its stead. In packing, I fill my firkins to within two inches of the top ; then lay a clean cloth on the top of the butter, and put salt on the cloth and keep it covered with salt and brine all the season. Great care should be taken not to let the milk stand too long before churning ; as, in that case, in hot weather, it becomes too sour, and the butter will be sour also, and in cool weather, it becomes bitter ; all of which can be prevented in cool weather, by putting about one quart of buttermilk in each pan or tub before straining the milk, and in hot weather, by churning as soon as the milk becomes thick and moist on the top of the cream. I use the Turk's Island salt of the Ashton sacks. I have never used any of the solar evaporated salt, nor steam refined salt from the Onondaga salt works.

Experiments.—I tried several experiments in making butter the past season, among which are the following :—Commenced making butter about the first of April, and up to the 4th of May, made 512 pounds of butter. May 5th, 1848, commenced packing for fall market, and closed about the 15th of December. June 15th, drew the milk from thirty-seven cows ; morning's mess, 525 pounds ; evening's mess, 632 pounds of milk ; in all, 1,157 pounds of milk, making 3 pounds 11 and a half ounces of butter, to 100 pounds of milk. June 20th, had three more cows come in, which made my dairy full. My cows commence coming in, or calving, in March, and do not all come in until the middle of June, as was the case this year. My dairy was not full until the 20th of June. I do not rear all the calves, but generally save a few of the finest. This year I reared six. I keep swine to consume the buttermilk.

I drew the milk from five cows for 30 days in succession, commencing with the 28th day of May, with the following result :—I made 248 pounds of butter from five cows in 30 days. On the 11th day of June, I drew from five cows 187 pounds of milk, which made, when churned, 8¼ pounds of butter. I churn all the milk, and churn by horse power, and usually churn four one-and-a-half barrel churns at once.

On the 8th day of August last, I drew the milk from forty cows ; in the morning, I got 508 pounds, and in the evening, 519 pounds ; in all, 1,027 pounds of milk, which, when churned, made 39 pounds of butter. The morning's mess made 3 pounds and 14 ounces of butter, from 100 pounds of milk, and the evening's mess made three pounds and 10 ounces of butter from 100 pounds of milk. I find that the morning's mess of milk made four ounces more butter than the evening's did from 100 pounds of milk. I also find that the difference between the morning's and evening's milk is not so great as it was for the last year, for the reason that the messes are nearer equal ; the quantity from each cow is as follows, August 8th, 1848 :—

	Morning.	Evening.		Morning.	Evening.
No. 1.	14 lbs.	13 lbs.	No. 21.	12 lbs.	13 lbs.
2.	10	11	22.	11	13
3.	13	12	23.	13	14
4.	14	13	24.	12	13
5.	13	13	25.	11	11
6.	14	14	26.	11	12
7.	13	14	27.	9	9
8.	15	14	28.	13	14
9.	10	9	29.	15	16
10.	12	12	30.	14	14
11.	13	14	31.	18	15
12.	16	15	32.	12	13
13.	11	12	33.	13	14
14.	11	12	34.	16	15
15.	13	13	35.	10	12
16.	14	17	36.	13	15
17.	14	11	37.	10	10
18.	12	11	38.	14	15
19.	13	13	39.	12	12
20.	12	13	40.	14	14

On the 11th of August, I drew the milk from twenty cows, and weighed and churned it separately, which resulted as follows :—

No. 1.	26 lbs.	milk.	1 pound	8 oz. butter.
2.	25	"		10 "
3.	27	"	1 pound	6 "
4.	28	"	1 "	2 "
5.	30	"	1 "	"
6.	23	"	1 "	4 "
7.	31	"	1 "	8 "
8.	28	"	1 "	1 "
9.	27	"	1 "	"
10.	26	"	1 "	3 "
11.	28	"	1 "	12 "
12.	24	"	1 "	4 "
13.	29	"	1 "	14 "
14.	19	"		14 "
15.	16	"		12 "
16.	17	"		8 "
17.	21	"		14 "
18.	33	"	1 "	15 "
19.	31	"	1 "	" "
20.	31	"	1 "	" "

The above table shows the difference between the milk of different cows. I find by churning the milk separate, that one of my best cows will make as much butter, as *three of my poorest* giving the same quantity of milk. June is a much better month for making butter than July or August, as I made one hundred and seven pounds more butter from thirty-seven cows in June, than I did from forty in July. I find, also, that one hundred pounds of milk drawn from my best cows, (that is, those that give the richest milk,) will make *one pound more butter* than one hundred pounds drawn from the whole herd. There is more difference in *quality* than in quantity. For making butter, it will pay all dairymen well to look to the quality of milk their cows give. One cow well kept, is worth two cows poorly kept, for dairying. I am inclined to think

that too many farmers overstock their farms, and consequently kept their pastures too short; as lands that are keep with a good coat of grass on them through the season stand a drought much better and produce pasture earlier the next season, and cows will do better on them, than on shorter feed.

Quantity of Butter Made.—As I have said before, I commenced making butter about the 1st of April, and up to May 4th, made 512 pounds; then commenced packing for the fall market. Made in May, 26 days, 747 pounds; in June, 30 days, made 1,186 pounds; in July, 31 days, 1,079 pounds; in August, 31 days, 1,016 pounds; and from September 1st, up to December 15th, three and a half months, 1,948 pounds, which is about the close of the season for making butter. I sold my dairy this year to R. Clearwater, at 183 Washington street, New York, on the 30th day of November, for 23 cents per pound, which amount was 5,030 pounds; the spring butter, and butter that was sent to the different fairs, and the butter that was made after the dairy was taken off, amounted to 1,450 pounds, the whole averaging 23 cents per pound, amounting in cash to $1,492.24; that is, over and above family use—and our family will average over eight in number—and which finally makes an average of $37.30 per cow, including heifers.

I sold my dairy last year to C. Adams & Co., at 224 Fulton street, New York, for 24 cents per pound. I am told by them that it went south and stood the climate well. JOHN HOLBERT.

Chemung, Dec. 25th, 1848.

CONSTRUCTION OF WHEELBARROWS.

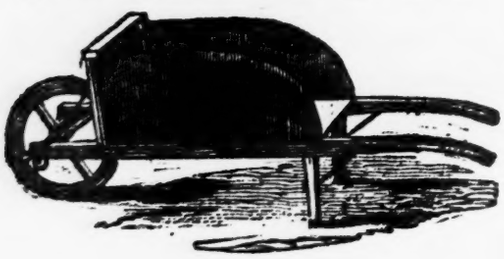


FIG. 53.

THE greater the diameter of the wheel of a barrow and the smaller the axes, or ends of the gudgeons, on which it turns, the less power will be required to drive it forward; for the leverage is thereby augmented and the friction materially reduced. The diameter of the wheel might be increased with manifest advantage to double that now generally employed; for, even then, it would be below the point of draft, or impulsion, (the hands of the laborer,) and the nearer it can be brought to a level with this, the more efficiently he can exert his power. The breadth of the felloes, or periphery, of the wheel, might also advantageously be increased one or two inches over that in common use, as it is generally employed upon a surface in some degree soft, in which case, such an increased breadth would diminish the depth the wheel of a loaded barrow usually sinks into the soil, and would evidently decrease the power required to overcome the resistance it would meet. In a wheelbarrow, thus constructed, a man might move, with more ease, 800 lbs. weight, than he now impels 500 lbs. by the usual mode.

If a wheelbarrow be made of wood, the feet and handles should be clasped with wrought iron, and its joints strengthened with bands of the same metal. If so guarded, it will outlast two others left unprotected. Barrows are now frequently employed in England, constructed entirely of wrought iron, weighing only 92 lbs., which are but little heavier than those commonly made of wood. The wheels are 16 inches in diameter, with the ends of the gudgeons, running in brass bearings, and the face of the felloes about three inches in width.

PRESERVATION OF TIMBER.

FOR some years, few things have occupied the attention of the British and French governments more than to devise some plan by which their ship timber could be saved from decay. The dry rot, in France and England, has been a matter of as much national complaint, as the corn laws, tariff, game laws, or any other of the various sources of excitement that serve to keep a people alive to their interest. But everything seems to have failed; and the dry rot has preserved its empire in its particular sphere, as firmly, to all appearance, as the Czar of Russia is now doing among the crumbling monarchies of Europe. Nothing has for any very long time shaken its dominion. Within a few years, a French gentleman, M. Boucherie, has, by a series of experiments, seemingly done a good deal to disturb its authority, and to hold out a hope that it may be entirely driven from power.

An idea of the extreme importance of such a result may be formed, when it is remembered that France has no colonies from which she can bring timber—that her population, by its rapid growth, requires every inch of land for agriculture—that her large forests must necessarily disappear, and that, whether for war or commerce, she will become dependent on other countries for her ship timber. She already imports more than $6,000,000 worth a year of this article—a state of things, which, in time of war, with any strong naval power, would rapidly destroy her fleet, unless so fortunate as to recruit it, by capture from the enemy. It is not, then, surprising, that both France and England, but particularly the former, should regard, as a matter of vital interest, the preservation of her wood, and encourage, in every way they can, every mind that is disposed to take up the subject. Heretofore, failure has arisen from two causes—the one, that the articles employed were only partially successful; the other, that they were too expensive for constant and general use. The first thing necessary, then, in opening a series of experiments, was to find some substance that was not only perfectly calculated for the purpose, but economical. But before attempting this, it was necessary to know what were really the causes of decay. M. Boucherie thinks that he has ascertained, by experiment, this important principle, "that all the alterations which wood presents, are due to the soluble matters which it contains." When brought into contact with a certain quantity of water, the action of which is aided by a proper temperature, they have the power of becoming heated, decomposed, and furnish a corrosive liquid that penetrates the woody fibre, alters its

structure, destroys its resistance, and transforms it into a substance, presenting many of the characters of ulmic acid. These soluble substances also afford nutriment to the various insects or animals which destroy woods.

The inference, naturally and necessarily to be drawn from these experiments was, that to preserve wood, these soluble matters must be altogether removed, or rendered insoluble. The first of these was attended with difficulties that made it impracticable; and all that was left, was to find some substance that would bring about the result. The impure pyrolignite of iron was fixed on, and appears, in the course of the experiments, to have fulfilled every purpose; the muriate of lime and common salt, also, were as efficacious in the preservation of wood, as the other salt, where the wood was not exposed to moisture. But a mode of introducing these solutions into the most remote fibres of the tree, was also to be devised; and this led M. Boucherie to consider whether the usual circulation of the tree, did not continue after it was felled; and whether this could not be employed to carry the various matters with which he was experimenting. The idea proved a fortunate one, and met with entire success. Six days, in September, a poplar tree, ninety feet in height, and fifteen inches in diameter, the foot of which was immersed eight inches into a solution of pyrolignite of iron, was entirely impregnated by the liquid. The same result was produced when the tree was on the ground, and also before it was cut, by inserting the fluid into excavations made in the trunk. A question presents itself, at this point, in the experiments, which it is important to decide—whether the absorbing power is the same at all periods of the year. It seems that there is no period in the year, in which the sap does not circulate. Even in winter, though not with so much strength as at other periods of the year; and what is, or appears to be singular, the spring, in which the circulation is, or is supposed to be, the most rapid and vigorous, is the least favorable time for the impregnation of the tree with these solutions, and autumn the best. Among the conditions necessary for success, one is, that the terminal foliage must be left on the tree, though all the other branches are removed; and another, that as little delay as possible is admissible, before the impregnation of the tree has commenced.

In the progress of these experiments, M. Boucherie has formed the conclusion, that the best time for felling timber, for its preservation, is the summer or autumn; but the winter, the season which has been selected for ages for this purpose, he conceives the most pernicious. There is one thing wanting in these results—that is, to know how long wood will last after being thoroughly impregnated. A vessel of war lasts, in time of war, eight years; in peace, fourteen. How, then, has M. Boucherie discovered a process by which these periods may be doubled? In ships, where several hundred men are crowded together, the heated and bad air, must always affect the timber, and dispose it to decay. How is this to be prevented? And if impregnation with a solution of pyrolignite of iron should do it, does it not render the wood so hard, as to make it extremely difficult to work? The solutions of the other two salts, render wood pliable; but then, it must not be exposed to wet. Though, for all other building purposes, except ships, it would be made less liable to crack and gape, as it now does by the changeable character of our climate. No seasoning has ever yet been able to prevent these two deformities to house architecture, and so ruinous, too, to furniture. There still remains, apparently, a portion of water, perhaps absorbed from the atmosphere, even after every process has been gone through to expel it.

A. L. Elwyn.

Philadelphia, May, 1849.

SUGGESTIONS IN THE IMPROVEMENT OF SLAUGHTER HOUSES.

His Honor, Mayor Woodhull, of our city, in his late message, has suggested the establishment of public slaughter houses, upon a plan resembling that of Paris. Under the present system of uncontrolled license, as is generally practised here, not only is our sight shocked and our olfactory organs offended by the too frequent occurrence of private slaughtering establishments, but, moreover, a mightier consideration is neglected—the purity of the article vended can with no certainty be determined. We insert, for the benefit of our readers, the following remarks on the method of arrangement and construction, adopted by the Parisians in the matter of their abattoirs, and the manifold advantages arising therefrom, which we most sincerely recommend to the attention of all our cities and populous towns:—

All meat, from animals slaughtered within the limits of the city of Paris, is prepared for market under the immediate supervision of municipal officers, at four great abattoirs, (slaughter houses,) situated in distant and unfrequented sections of the town, and most generally upon very elevated ground. The buildings, used for the purpose, are situated within a public park, near the magnitude of Washington square, in New York, surrounded by a wall, and entered only through one large gateway. At the portal, stand the officers, or the persons employed in the supervision of the establishment. As each animal is brought in, it is carefully weighed, registered, and a veterinarian examines its condition. If pronounced diseased, it is either condemned or consigned to a species of hospital within the grounds. Every carcass, after being in due manner operated upon, is weighed and examined, in like manner, before leaving the gates; the government being thus responsible to the butcher to render him an account of the products of his labor in meat, grease, hides, and even the offal. The cattle are kept in stables, each holding about a hundred head, rivalling in cleanliness those of a racing stud; the beasts are, moreover, permitted to graze within the enclosure, and are led to drink at large fountains of perpetually flowing water. The slaughter houses are detached, and at some distance from each other. The animals are killed, either by butchers employed by the municipal authorities, or the owner can hire a portion of one of these general buildings for his own use, subject to the official supervision.

After being killed, the smaller animals are skin-

ned in the open air, upon wooden frames resembling gigantic gridirons. They are then examined by a good practical physician while resting on the frames. A number of separate tenements contain apartments for the preparation of the hides and other marketable materials, the perquisites of the butcher's art. An immense reservoir disseminates pure water through the entire abattoir, and the blood is carefully collected in tubs, and never allowed to flow. Thus, at a trifling expense, which is charged upon the vender for slaughtering, &c., the public are guaranteed a pure article of food, and the many evils of our system entirely avoided.

The butchers' shops in Paris, are likewise destitute of doors and windows; the entire front being composed of an iron railing, which is closed at night, only for protection against theft, allowing a free circulation of air around the meat at all times. These retail establishments are daily visited, at the opening and close of business, by subordinate agents, who compare the vouchers of the abattoir with the stock on hand; and hence, any attempt at fraud, or the vending of inferior meat, is completely frustrated.

If a similar system were adopted in this country, not only would these buildings be made a source of revenue to the cities or towns themselves, but, in addition, it would even tend to cleanliness and consequent healthiness, and what is of equal moment, the purity and wholesomeness of the articles consumed by the inhabitants.

To Raise Gooseberries.—There is great difficulty in raising healthy stalks and well-ripened gooseberries in this country, which, we think, is owing to a want of the requisite humidity in our summer atmosphere. In damp situations, as in Scotland and the north of England, they are generally prolific and healthy. We lately saw some splendid specimens on Mount Ida, Troy, N. Y., in the garden of Mr. Vail. He attributed his success entirely to placing a good coating of salt-marsh hay around the stems. This has a double effect in accumulating moisture, as both the salt and hay, in this position, are efficient agents for the purpose. We have also seen an immense production of the fruit of gooseberries from placing a pint of saltpetre about the roots. Ashes and plaster have likewise the effect of greatly increasing humidity, whenever applied; and each of these we should deem a good substitute for salt hay.

Setting out Trees in Sandy Soils.—Trees have frequently been made to grow in dry, sandy soils, by placing a considerable quantity of rubble stone over the roots, which have first been slightly covered with good soil. An ample excavation of the original soil, both in depth and width, should first be made; then throw into the hole well-rotted turf or swamp muck, on which the roots should rest. Cover these slightly, and add the loose stones freely, over which additional fertile earth should be placed, well mixed with wood-ashes. Peach trees, willows, and other trees have been made to live when thus set out, where they had invariably died before.

SUMMER MANAGEMENT OF SHEEP.—No. 2.

Ticks.—These, when very numerous, greatly annoy and enfeeble sheep, in the winter, and should be kept entirely out of the flock. After shearing, the heat and cold, the rubbing and biting of the sheep soon drive off the tick, and it takes refuge in the long wool of the lamb. Wait a fortnight after shearing, to allow all to make this transfer of residence. Then boil refuse tobacco leaves until the decoction is strong enough to kill ticks beyond peradventure. This may be readily tested by experiment. Five or six pounds of cheap plug tobacco, or an equivalent in stems, &c., may be made to answer for 100 lambs.

Maggots.—Rams with horns growing closely to their heads, are very liable to have maggots generated under them, particularly if the skin on the surrounding parts gets broken in fighting; and these, if not removed, soon destroy the sheep. Both remedy and preventive is boiled tar, or the marking substance heretofore described. Put it under the horns, at the time of marking, and no trouble will ever arise from this cause. Sometimes, when a sheep scours in warm weather, and clotted dung adheres about the anus, maggots are generated under it, and the sheep perishes miserably. Preventive—Remove the dung. Remedy—Remove the dung and maggots—the latter by touching them with a little turpentine, and then apply sulphur and grease to the excoriated surface.

Maggot flies, says Blacklock, sometimes deposit their eggs on the *backs* of the long, open-wooled English sheep, and the maggots, during the few days before they assume the pupa state, so tease and irritate the animal, that fever and death are the consequence. Tar and turpentine, or butter and sulphur, smeared over the parts, are given as the preventives. The Merino and Saxon are exempt from these attacks.

Shortening the Horns.—A convolution of the horn of a ram sometimes so press in upon the side of the head or neck, that it is necessary to shave or rasp it away on the under side, to prevent ultimately fatal effects. The *points* of the horns of the ram and ewe both, not unfrequently turn in so that they will grow into the flesh, but sometimes into the eye, unless shortened. The toe nippers will often suffice on the thin extremity of a horn, but if not, a fine saw must be used. The marking time is the best one to attend to this.

Division of Flocks.—It is customary at or soon after shearing, to make those divisions in large flocks, which utility demands. It is better to have not to exceed two hundred sheep run together in the pastures, though the number might, perhaps, be safely increased to three hundred, if the range is extensive. Wethers and dry ewes to be turned off, should be kept separate from the nursing ewes, and if the flock is sufficiently numerous to require a third division, it is customary to put the yearling and two-year-old ewes and wethers, and the old, feeble sheep together. It is better in all cases to separate the rams from all the other sheep, at the time of shearing, and to enclose them in a particularly well-fenced field. If put even with wethers, they are more quarrelsome, and when cool nights arrive, will worry themselves and waste their flesh in constant efforts to ride the wethers. The Me-

rino ram is a quiet animal compared with the common-wooled one; but poor fences, or fences half the time down, will tempt him to jump, and if once taught this trick, he becomes very troublesome as the rutting period approaches, unless hoppling, yoking, clogging, or "poking" is resorted to—any of which causes the animal to waste his flesh and strength, and are the cause of frequent accident.

Weaning Lambs.—Lambs should be weaned at four months old. It is better for them, and much better for their dams. The lambs, when taken away, should be put for several days in a field distant from the ewes, that they may not hear each other's bleatings. The lambs, when in hearing of their dams, continue restless much longer, and they make constant, and frequently successful efforts, to crawl through the fences which separate them. One or two tame old ewes are turned into the field with them to teach them to come at the call, find salt when thrown to them, and eat grain, &c., out of troughs when winter approaches.

The lambs, when weaned, should be put on the freshest and tenderest feed. I have usually reserved for mine the grass and clover, sown the preceding spring, on the grain fields which were seeded down.

The dams, on the contrary, should be put for a fortnight on short, dry feed, to stop the flow of milk. They should be looked to, once or twice, and should the bags of any be found much distended, the milk should be drawn, and the bag washed for a little time in cold water. But on short feed, they rarely give much trouble in this particular. When properly dried off, they should be put on good feed to recruit, and get in condition for winter.—*Randall's Sheep Husbandry South.*

IN-AND-IN BREEDING.

Ever since we witnessed the good results of judicious in-and-in breeding among domestic animals, in Great Britain, we have been advocates of the system to a certain extent, and could wish to see it more extensively practised than it now is in our own country. Yet, we are free to say, that, owing to the little knowledge of this science, at present existing among American farmers, for them to attempt the in-and-in system, would be attended with no small hazard. The theory of correct breeding ought to be made a part of their common-school education; and, in their practice, they should be guided by those who are most successful in rearing improved animals.

It is astonishing how supine farmers are, in regard to this important subject; and if they have thought or acted on it at all, it has generally been in so crude and ignorant a manner, and so much by fits and starts, that little general good has been the result. They ought to start with a correct and definite notion of what is to be attained, and then follow that up, year after year, with unabating perseverance, till the object in view is fully accomplished. This, then, should be left to their heirs, the same as any other property or knowledge to be preserved and perpetuated, or if the advancement of science admits of it, in after years, to be still further improved.

Breeding fine stock has been, and still is, a source of great wealth to Great Britain; America might profit equally by it, if disposed to do so. In some of the English flocks and herds, close in-and-in breeding has been practised with the most beneficial consequences for nearly a century. We scarcely know an instance of this for ten successive years among those of our own country.

IMPORTATION OF SHORTHORN CATTLE.

On my return from England last winter, I brought with me, for account of Col. Sherwood, of Auburn, N. Y., and myself, a shorthorn bull and three shorthorn heifers; and one bull calf for J. F. Sheafe, Esq., Duchess connty, N. Y. Col. Sherwood and myself have had so many inquiries as to these cattle, that I ask a notice of them in the Agriculturist.

The bull is 3d Duke of Cambridge; his portrait and pedigree may be seen in the 4th vol. of the English Herd Book, page 614, No. 5941. He was bred by that distinguished breeder, Thomas Bates, Esq., Kirkleavington farm, England, who is widely and well known both in England and America. The heifers and bull calf were bred by John Stephenson, Esq., of the county of Durham, England, well known as the possessor of the superior and famous Princess tribe of shorthorns.

In the execution of the commissions of Mr. Sheafe and Col. Sherwood, I was left to my own discretion; they trusting to my judgment. I made a thorough examination of the various herds of shorthorns in England, and from among them selected such animals as I thought would meet the views of my associates, and, at the same time, satisfy the critical scrutiny of American breeders.

These cattle have now been in America five months, and have been seen by hundreds of persons, including many of our best judges and breeders. It gives me great pleasure to say, that they have met the approbation of all who have seen them. The universal testimony is, that, in every respect, they are the best shorthorns ever imported into America.

The vessel on which they were brought over encountered weather of great severity, and the voyage was both long and tempestuous; indeed, for twenty days, there was a continued hurricane. The cattle were reduced and worn out; they are now all recovered, except one heifer, and she was ill, and was knocked all to pieces by the vessel, and has not yet regained her form; I fear she may not; she was the best of the three heifers, before sailing.

The origin of these animals is this: The late Sir Henry Vane Tempest, of Wynyard Park, county of Durham, England, possessed a herd of shorthorns, well known for its wonderful and unsurpassed excellence, and called the "Wynyard herd" or "Princess tribe." In 1800, Sir Henry bought the original of his herd, the cow Princess, of Robert Colling. After his death, the Wynyard herd was sold, and the cow Agelina, (a granddaughter of Princess,) became the property of Mr. Stephenson, of Wolviston, Durham. From Angelina, the cattle which I have brought over are descended. I give the pedigree of one of the heifers in full, to show how rich is their breeding.

Princess 3d, by Napier, (No. 6238, in the English Herd Book,) dam, Rose Ann, by Bellerophon (No. 3119,); grandam, Rosette, by Belvedere (1706); great grandam, Red Rose, by Waterloo (2816); great great grandam, Moss Rose, by Baron (58); g. g. g. grandam, Angelina, by Phenomenon (491); g. g. g. g. grandam, Anna Boleyne, by Favorite (252); g. g. g. g. g. grandam, Princess, by Favorite (252); g. g. g. g. g. g. grandam, Brighteyes, by Favorite (252); g. g. g. g. g. g. grandam, Brighteyes, by Hubback (319); g. g. g. g. g. g. g. g. grandam, Brighteyes, by Snowdon's bull (612); g. g. g. g. g. g. g. g. g. grandam, by Masterman's bull (422); g. g. g. g. g. g. g. g. g. grandam, by Harrison's bull (669); g. g. g. g. g. g. g. g. g. g. grandam, Tripes, by the Studley bull (627).

Angelina was bred by Sir H. V. Tempest, and sold to Mr. Stephenson; Princess, bred by Robert Colling, and sold to Sir Henry; Brighteyes, by Hubback, bred by Alexander Hall, and sold to R. Colling; Tripes, bred by C. Pickering, and sold to Mr. Hall. This pedigree goes back more than one hundred years. The descent of the Princess tribe of shorthorns, traces farther back than any recorded in the Herd Book, and the blood throughout is of the highest character.

In the above pedigree, the bulls Napier, Bellerophon, Belvedere, and Waterloo were all bred by Mr. Stephenson, and are all descended from Angelina. Baron was of Robert Colling's blood, and was of the same tribe as Angelina.

The bull 3d Duke of Cambridge, was got by Duke of Northumberland (1940); dam Waterloo, 2d, by Belvedere (1706); grandam Waterloo, 1st, by Waterloo (2816); great grandam, Lady Antrim, by Waterloo (2816); Anna, by Lawnsleeves (365); Angelina, by Phenomenon (491).

Duke of Northumberland, (1940,) bred by Mr. Bates, was got by Belvedere (1706); dam, Duchess, 34th, by Belvedere (1706; grandam, Duchess, 29th, by second Hubback, (1423,) &c.

Mr. Bates bought Belvedere, (1706,) of his breeder, Mr. Stephenson.

The other two heifers, imported by me, are bred as follows:—Princess, 2d, got by General Sale (8099); dam, Duchess, by 4th Duke of Northumberland (3649); grandam, Rosette, by Belvedere, (1706,) &c., as in the pedigree of Princess 3d. Fourth Duke of Northumberland was brother of Duke of Northumberland (1940). General Sale, bred by Mr. Stephenson, by Napier, out of Rose Ann, and is full brother of Princess 3d.

Red Rose 3d, by General Sale (8099); dam, Maid of Orleans, by Mameluke (2258); grandam, Helena, by Waterloo (2816); great grandam, Moss Rose, by Baron, (58,) &c., as in the pedigree of Princess 3d.

There are portraits of Napier and Princess 2d, at the rooms of the New-York State Agricultural Society, at Albany. Such portraits of such animals are nowhere else to be seen in this country. I invite an inspection of them.

I have great pleasure in knowing, that I have brought to this country so superior a bull from the herd of that eminent breeder, Mr. Bates. He is the only bull in America got by Mr. Bates' crack prize bull, Duke of Northumberland, (1940,) the best bull Mr. Bates ever bred. Mr. Bates has but one more, got by the same bull, now left; and Duke of Northumberland is dead. Mr. Bates repeatedly told me, that 3d Duke of Cambridge was more like his sire than any bull ever got by him. Breeders, desiring the blood of Mr. Bates, can nowhere else, in this country, procure it with such high characteristics of style, quality, symmetry, and substance.

From the various expressions of approval received, I select the following. The writer, Lewis F. Allen, is well known as an extensive breeder of shorthorns; and as a judge, no person in the United States has had a more intimate knowledge of this breed of cattle in our country for the last twenty-five years. He is the author of the American Herd Book. The letter was addressed to Col. Sherwood, after his return home from Auburn.

"Since looking at your bull, 3d Duke of Cambridge, I have thought much about him; and in comparing this animal in my mind with all the bulls I have ever seen, I am more and more impressed with his superior value to anything *yet* brought into the United States. In short, he fills my mind entirely with nearly all the qualities which a perfect shorthorn should possess; and I do not know but the heifers are quite his equals in style, quality, &c. I trust you will have all the success both in their increase and in the sale of their produce, which you deserve; for our country has never before, within my knowledge, received such an acquisition in the stock line, as in these cattle. You deserve much for your enterprise; and Mr. Stevens a great deal for his judgment and good taste in selecting such animals. They far exceed my anticipations, although I am free to say, I anticipated much from Mr. Stevens' selections, with all England for a field to choose in."

This opinion was wholly unsolicited on the part of Col. Sherwood or myself, and wholly voluntary on the part of Mr. Allen.

Steps have been taken to have a portrait of 3d Duke of Cambridge engraved for publication in the Agriculturist for September or October; and of Princess 2d, in some future number.

These animals are now at Col. Sherwood's, Auburn, New York, where they may be seen. It is now designed to show them at Syracuse, at the great cattle show of the State of New York, in September next. Col. Sherwood and myself invite the attention of breeders and amateurs to them.

A. STEVENS.

New York, July 9th, 1849.

HOW TO CATCH SHEEP.—In catching sheep, never seize them by the wool on the back, as it hurts them exceedingly, and, in some cases, has been known to kill them, particularly in hot weather, where they were large and fat. Indeed, the best way is, to avoid the wool altogether, and to accustom yourself to take them by the hind leg, or what is still better, by the neck, placing one hand under the jaws, and the other at the back of the ears. By lifting up the head, in this manner, a child may hold almost any sheep, without danger to the animal, or himself.

REVIEW OF THE MAY NUMBER OF THE AGRICULTURIST.

Effects of Castration on Animals.—I wish the views of this writer could be impressed upon the minds of all that class of the community who seem to think, or rather act, as though they were religiously opposed to castration in all cases. It is surprising, and almost past belief, that there are such a number of miserable runts of uncut calves, lambs, and pigs, I saw, last week, in a little journey of a hundred miles, that I took among some of about as good farmers as the country affords. In most cases, it is, of course, carelessness; but it is too often the case, that the owner of a calf is no judge of the points that indicate a good breeder, and he is saved from the castrating or butcher's knife, because "he was out of a mighty good cow;" or because the owner "guesses he aint a goin' to pay Deacon Spriggins four-and-sixpence for the use of his darn'd old ram agin." Well, the calf is saved, grows up to bullhood, proves good for nothing, is castrated, and then is a clumsy, lazy, old stag, unsaleable as an ox, unfit for beef, unruly through life, and rejoiced over by the boys when he at length becomes food for the crows; and all because he was not castrated while young. When will men learn that all of our domestic animals are "like clay in the hands of the potter," and that ultimately they may be almost moulded at will! The spaying of heifers ought to be practised, not only for milkers, after their first calf; but when they are not good milkers, spay them and put them to the yoke. As for pigs, let all those who prefer old-sow pork, remain wedded to their idols, and let nature have her course.

Rearing Calves—Reply to Reviewer.—Does Mr. Sotham mean to be understood, that he would rather have a "runt of a calf" to rear, to make a fine animal, than a good one? For thus his language conveys the idea; and, as I think, a very erroneous ones. The world knows that we are already too apt to send all the best calves and lambs to the butcher now, and save the runts for breeders; and if backed by such a man as Mr. Sotham, we shall soon believe that this is the right course. I know he does not so mean; and therefore beg him to put his language in a shape to be differently understood. I am as much opposed to the stuffing of calves for show, as he is; and I wish that judges, at our fairs, would not only refuse to give premiums to such, but would express their disapprobation of the course. I am glad to hear Mr. S. declare, distinctly, that "he is not a shorthorn man." But where are the proofs?

Experiments with Potatoes.—From these, and my own experience, I would say, rot or no rot, plant whole tubers of a medium size.

Adulteration of Food, No. 11.—My only regret is, that the adulteration of these drinks is not carried to a much greater extent than it is. For then, fools would drink and die at once, instead of dragging out a poisoned life of misery to themselves and every one around them; and then, perhaps, the world would begin to see the wicked abominations of these wicked adulterators.

The Dog Distemper—A Better Remedy—A Sure Cure.—Take two grains of strychnine, and give it in a little milk or any food the dog will eat. N.B.—It don't operate well upon good shepherd dogs, nor fine spaniels, nor Newfoundland dogs; but for nine tenths of the canine race, it is the best medicine in the world. It is also good for cats, where there are no rats, mice, nor moles to catch.

Domestic Fish Ponds.—And so you are surprised that your country friends don't make fish ponds! I am not surprised to see them year in and year out, living upon hog and hominy, and at night shutting themselves up in a tight room, and burying themselves in feather beds, and getting up in the morning wondering what makes them feels so! They would feel better, if they were to plunge into that same fish pond. But until men learn a little more of improved husbandry, how can you expect them to make such an improvement as an artificial fish pond? For my own part, I know of no reason why fish should not be *cultivated* for food, as well as hogs. I am sure that people would be more healthy if they would be less *hoggish* in their eating. In locating a fish pond, care should be taken not to get it too near the house, and make it a great musquito and fever-and-ague manufactory.

Premium Beef.—Very good. How much did it cost a pound, not only to the maker but consumer?

Application of Plaster.—The same result has followed the application of carbonate of lime to land. At first, the product is increased; but for want of any application of manure, and by constantly taking off all crops, the land ceases to produce, because the vegetable matter is eaten up; and then the lime, or marl, is cursed as good for nothing. "Why, I thought that lime was manure!" "Well, if I've got to use other manure, I won't use lime," are common expressions. But how can you expect men to understand that neither phosphate nor carbonate of lime is manure, as they understand the term, who never read a word about agricultural chemistry, nor anything of the science of cultivation. How easy it is to see that a man may be a good sailor, so long as he keeps within sight of shore, but unable to navigate beyond the sight of land. Just so with those who cultivate the earth. Thousands who live by it, and think they cannot be taught anything new, never knew nor thought a word about the natural constituents of plants. How can you expect such men to apply plaster, in the first place, and much more, ashes in the second, who do not even apply such a rotation of crops as would tend to keep up the fertility of the soil?

Southern Planting, &c.—I am glad to see such an article as this from such a man as Col. Hampton. Independent of his being one of the best farmers in South Carolina, as I am told he is, his name and position in society give his opinions a weight that produces an influence that cannot but be felt by those of less note. What a pity it is that many other gentlemen of his standing, would not write more. I hope we shall continue to be favored with his communications, now he has broken the ice. I wish he had told us how much land he put that large amount of manure upon, as to us, forty-acre Yankee farmers, it is a big heap.

Race Horses vs. the Poor of Great Britain.—I wish you had not published this article. It

makes me feel as though all of that corn that Jonathan and I raised by the sweat of our brows, and sent over to feed the famishing Irish, had indirectly gone to feed horses and horned beasts kept to consume the food that should go into human stomachs, and by which we have helped to breed and propagate gambling, and all its attendant hunting and horse-racing accompaniments. There is something rotten in England as well as Denmark. As putrescent manures produce good crops, I hope something good will soon grow out of this rottenness.

Red-Cedar Posts.—Glad to hear that this timber is so plenty within reach of New York; for we are going to use a great quantity of cedar posts, when we all begin to make wire fence. And unless we are to have that good time when all fences shall be no more, the sooner we get to making them of iron the better. There is one item of advantage in wire fence, that I have never seen noticed; that is, it never will blow down; and this, in our windy country, is a very important consideration.

Mosses on Meadows.—"Moses on meadows!", said a neighbor of mine, who borrowed my paper (he never subscribes for one of them book-farming papers.) "I should like to know what *Moses* knew about meadows. Though he might have some knowledge of bulrushes, I fancy he knew but little about such grass as we grow now-a-days." And with that he turned over the leaf as unworthy of his notice. I fear this is too often the case with readers. If they even cut the leaves of the paper, they look it over with about as much attention as my neighbor did "Mosses on Meadows," and, doubtless, as will many others do to this very article.

Hints on Horses, No. 1.—First rate. No fault to find. Go on. Perhaps I may catch you tripping in the next number. And then the lash is ready.

Guano vs. *Poudrette.*—Multum in parvo. It ought to be printed in large letters, and posted upon the corner of every street. How to destroy, not save, all fertilizing matters, appears to be the sole study of all the city fathers. But all trades must live; and if we should save and apply all of these home-made manures, how could the guano trade live? There are a great many other round-about-ways of doing things in this world, besides sending the materials of which guano is made down into the deep waters, to be returned to us after many days.

New Mode of Preparing Bones for Manure.—This, of all others, appears to me to be the cheapest and best mode yet thought of. I know a friend of mine, who has erected a bone mill, at considerably greater expense than the steamer would have been, particularly as the bone mill is driven by steam, which could just as well have been applied to the bones, as to drive the mill that grinds them. A wooden vessel would answer, I suppose, as such are used to steam fat out of hogs, sheep, &c., that are tried up for their grease.

Very Important to Farmers, is the title of an article from Mr. Wilkinson, which certainly shows his experiments in a very favorable light. But there should have been one more; that is, to test the quality of the increased quantity of milk. Now, for all purposes, except to sell by the quart, a pint of milk may be worth as much as a quart. It is also worth the inquiry, whether the cows will continue as healthy upon this warm food and close confinement, as otherwise. My opinion is, that they will not. Feeding hogs with warm swill may do better, as they are so much like folks. But there is decidedly too much warm food taken into human stomachs, for the good of all the dependent members.

Supposed Injury from Plowing under Green Corn Stalks.—I deny the position, in toto, assumed by this writer, that green corn stalks, or any other vegetable containing sugar, are not suitable crops to turn under for manure. I grant that alcohol and vinegar are not good fertilizers; but supposing this man had applied 40 bushels of lime per acre to his land, how much vinegar would his corn stalks have made? He would then have had a "rich mass" of really fertilizing manure. I have heard of just such things before.

Profits of Farming.—It would have been much more satisfactory to your readers, if Mr. Wilkinson had given the prices per bushel for which he actually sold his produce, because it strikes me that he has got the prices full high. For instance, wheat is within a fraction of $2.10 a bushel, which is certainly so far above the market, that it throws a shade of suspicion upon the correctness of the whole table, unaccompanied by any explanation. Corn is rated a little over 60 cents; rye, a fraction less than 90 cents; oats, 32 cents; and potatoes, 75 cents, &c., &c. Now, are these actual, fair market prices? If they are such, at Philadelphia, they are not general, and a proper deduction must be made for other localities. The same amount of fertility may be obtained in many places, at about the same expense probably; but, instead of this article being called "Profits of Farming," it should have been headed, "Profits of a Small, Well-cultivated, Rich Farm."

Analysis of Soils, &c.—These tables of analyses are just what I like to see. I hope they will be continued until we can get a general knowledge of the character of the soil in all parts of the country. As they seem to be put forth with a sort of "by authority" endorsement, I hope they may be depended upon as correct.

Successful Growth of Cranberries on Upland.—Although "one swallow don't make it summer," I hope this one experiment will make a great many fields of this valuable fruit. If the same success continues, I don't see why every one, who has a garden, may not have a plat of cranberries as well as strawberries, unless they are prevented by that blighting influence of procrastination, which, after all, is the greatest preventive of all others. I have no doubt that swamp muck, spread over the land, will be found to be the best manure for this crop. That it is a profitable one, I think has been sufficiently demonstrated by several Massachusetts farmers, and that should induce others to "go and do likewise."

Driving Hogs East.—Not only hogs are driven from the fertile lands of the great west, to fill the mouths of the great manufacturing Yankee nation, but cattle and sheep come from the same inexhaust-

tible source. Large droves of young cattle are driven from the grand prairie of Illinois every year into the state of Ohio, and are there used as oxen or kept for milk, as long as profitable, and then move forward to the vicinity of Philadelphia, New York, and Boston; and after taking on a coat of fat, they make a final move to the butcher's stall, or, perchance, some of them go down in the great ships that go over the Atlantic, and thus western-prairie beef is eaten in England. Truly the shrewd Yankee is always about, where there are a few cents to be made, because the schoolmaster that was about when he was a boy, taught him that 100 of these same cents are equal to an old Spanish-milled dollar, which, at any and all times, is fully equal to an old, greasy, ragged dollar bill of some unknown bank away down in Passammygunk.

Recipes for the Ladies.—I am glad to see that Mr. Robinson is still mindful of his best friends; for such, I believe, he has always esteemed the fair portion of our good world. I have eaten a most delicious bread in the south, made of hommony, and, perhaps, a little flour and eggs. Can you give us the recipe for that, old friend? As to that chicken-fixen dish, I suppose it is French. Good, no doubt; but are you sure there are no frogs in it?

What Can be Done by a Farmer's Wife.—Why such a one as this, can make her husband both rich and happy.

The Way to Win a Husband.—Girls, did you read that? Read again. I think I could be won by such a course; for I love mutton chops, and I should delight to have her come and whisper softly in my ear, "I did it." Ah! what should I not do while her lips were so near? REVIEWER.

APPLES, AS AN ARTICLE OF HUMAN FOOD.

THE importance of apples, as food, has not hitherto been sufficiently estimated in this country nor understood. Besides contributing a large proportion of sugar, mucilage, and other nutritive matter, in the form of food, they contain such a fine combination of vegetable acids, extractive substances, and aromatic principles, with the nutritive matter, as to act powerfully in the capacity of refrigerants, tonics, and antiseptics; and when freely used at the season of ripeness, by rural laborers and others, they "prevent debility, strengthen digestion, correct the putrefactive tendencies of nitrogenous food, avert scurvy, and probably maintain and strengthen the powers of productive labor."

The operators of Cornwall, in England, consider ripe apples nearly as nourishing as bread, and more so than potatoes. In the year 1801, a year of scarcity, apples, instead of being converted into cider, were sold to the poor; and the laborers asserted that they could stand their work on baked apples, without meat; whereas, a potato diet required either meat or fish.

The French and Germans use apples extensively; indeed, it is rare that they sit down, in the rural districts, without them in some shape or other, even at the best tables. The laborers and mechanics depend on them, to a very great extent, as an article of food, and frequently dine on sliced apples and bread. Stewed with rice, red cabbage, carrots, or by themselves, with a little sugar and milk, they make both a pleasant and nutritious dish.

HUDSON-RIVER FARMING.

WE have recently been highly gratified in witnessing the successful application of labor-saving machinery to farming operations; and in no one preceding instance, have we seen more triumphant results.

Judge Van Bergen, of Coxsackie, has, for the last 43 years, been the owner and occupant of a large farm, lying two miles from the west bank of the Hudson. Till within a year or two, it contained 700 acres and the old paternal mansion. The latter occupies an elevated position, from the observatory of which, four states are visible. The Coxsackie Valley, a wide plain, of open, gently rolling, fertile soil, stretches northwardly for ten miles. For an equal or greater distance, it extends in a south-westerly direction, till it reaches the foot of the Kaatskill Mountain. Covered throughout their whole extent, with a luxuriant growth of grass, grain, and other crops, the expanded fields everywhere are dotted by graceful shade trees, and the surrounding hills and mountains loaded with their richest summer foliage, the view combines all the beauties of a western prairie and an English park, with the magnificence of Alpine scenery. Judge Van B. has recently sold about 100 acres of this land, including the mansion and principal farm buildings, to a young gentleman from Maryland, who has had the taste to appreciate, and the good sense to cultivate, these luxuriant acres, in preference to continuing the more alluring, but too often delusive pursuits of a mercantile career. Of the 600 acres, 250 are in wood, 250 in meadow, and 100 in grain and roots.

The plowing, subsoiling, harrowing, rolling, planting, and cultivating are accomplished by two men only, with the aid of their teams and implements; and such is the confidence of Judge Van B., in the success of his operations, that he asserts the entire practicability of cultivating 70 acres of corn, *in the best possible manner*, with but these two laborers.

The plowing is done either in the fall or early spring, the former being preferred for the clay, which is the predominating soil. A furrow is thrown upon the unplowed ground at some distance from the edge of the field, with the most approved two-horse plow. The team then turns to the left, and returns, throwing another furrow parallel with the first and in the same manner. The plow is then brought back to the right of the first furrow, and enters upon the unbroken ground, that is but partially covered with the loose earth first thrown up, leaving about the width of one furrow unbroken by the plow and covered by the preceding furrow. This operation throws the whole field into high beds, of the width of a furrow, in which condition it is best fitted for the access of air, heat, and moisture, and with but half the labor of ordinary plowing.

The subsoil plow then follows in the bottom of every furrow, as deep as it can be driven with one, and sometimes two, good pairs of oxen or horses. After this operation, the ground is allowed to remain exposed to the meliorating effects of the atmosphere, till the proper time for fitting it for the reception of the seed.

The preparation for planting is usually made

with a machine, in the form of a stone boat, consisting of compact oak plank, about two inches thick, eight feet long, and three to four feet wide, according to the team used, or the work required to be done. This has a large number of miniature, wrought, scymeter-shaped cutters, with a sharp, convex edge, from six to twelve inches in length, set into the plank by shanks and keyed. These are slipped in or out at pleasure, and may be longer or shorter, near or far apart, according to the condition of the land, or the operation required. This cuts the land into thin slices, while another horizontal cutter, reaching the whole width of the plank, and to which it is fastened by shanks, and at any required depth, but generally five or six inches, divides and slightly raises the whole surface, the heavy plank, in every instance, forming by its weight, an efficient clod crusher for any lumps upon the surface. This operation tends to fill up the furrows and pulverize the earth, with the slightest expenditure of team power. Another implement is frequently applied to effect this object, which is simply a large triangular frame with a neap or tongue, with apertures, in which cultivator teeth are placed at any required distance. These implements having passed at right angles, a sufficient number of times over the field, it is ready for seeding.

For planting corn, the implement well known as the *cornplanter* is used, which, with a man and horse, plants 8 or 10 acres per day, furrowing, dropping, covering, and rolling the seed at a single operation, and much more perfectly, than can be done by hand. Carrots, beets, and parsneps are sown with a seed drill, that acts with equal precision and despatch; while a double-moldboard plow throws open the ground for potatoes, and a furrow on either side buries them.

The small grains are sown broadcast, and covered either by the gang plow, the cultivator, or the crescent-tooth harrow, (before described,) as may be most desirable.

The cultivation of corn and potatoes commences immediately after their appearance above ground, and before the weeds have acquired strength or vigor. The crescent harrow or cultivator is passed at right angles between the rows and close upon the hills. The former is often run directly over and through the corn. The blades, or teeth, are so thin and the corn has so strong a footing, that scarcely any injury is done, by tearing or uprooting it, while there is great benefit derived from the thorough pulverization received directly among the roots.

The great secret of easy and successful cultivation, is, to commence early and do it thoroughly. The weeds are then easily subdued, and the same disturbance of the soil that kills them, most effectually aids the growth of the crop. Should the weeds at any time get the upper hand, by reversing the ends of the crescent harrow, we have a thick series of hooks which will tear out the weeds with their roots, more perfectly than can be done in any other way.

Small iron moldboards for throwing either right or left are employed for removing the earth. One of these is used as the last tooth in either leg or wing of the cultivator, for the purpose of drawing the mold, or top soil, away from the rows, and to admit the sun and promote early growth. In the next, and any succeeding operation, these plow-teeth are reversed, so as continually to throw the earth to the plants. With the adaptation to every purpose, which, by a slight change these different implements possess, the cultivation of the crops is made complete, without the aid of the hoe or any hand implement. *Judge Van B. has raised 97 bushels of shelled corn per acre on three and a half acres of ground, with the use of no other implements than those moved by the team.*

A large portion of the farm is devoted to meadow, hay being one of the most profitable crops for export, and the character of the soil being peculiarly adapted to it. One field, containing over 200 acres, has 180 in meadow, and most of the remainder will be added to it another season. No portion of a field, once laid down to grass, is ever subjected to the plow, unless the presence of weeds, or diminution of the valuable grasses, renders it necessary. Most of the meadows have been laid down for 8 or 10 years, and one has not been disturbed for half a century, at least, and has throughout that entire period produced good crops.

The principal grass is Timothy, though clover, herd's grass, and some other indigenous grasses are occasionally sown or come in. The former is kept in the sod, by allowing the grass partially to ripen before cutting, once in three or four years, and then omitting to rake the hay clean from the ground. This is sufficient to re-seed it effectually.

The hay is made on this farm on truly rational principles. No grass is cut when there is either rain or dew upon it; and each mower is required to lay his grass in clean, regular swaths, which, with a little attention, is as easily done, as to scatter it heads and points over the whole field. After wilting at the top, a four-pronged, light, wooden fork is used for shifting the hay to a new spot, which has become heated by the sun; and if very heavy, the swath is turned over. At every operation of moving, a forkful is lifted to some other pile, carefully preserving in every movement, the horizontal position of the grass. If a rain is anticipated, a few of these piles are laid upon each other, and no trimming is then necessary to preserve the hay from injury from a week's rain, as the grass in this position sheds the water perfectly. When cured in these small heaps, the cart passes between them, when they are pitched upon the load, after which, the horse rake passes over the meadow and gleans every particle of hay.

A great improvement, it will be seen, is thus secured, by doing away with hand raking, and the horse rake is only used for gathering the scattering locks, the greater portion being first removed by the fork, without raking. This mode of curing avoids the scorching effects of a hot sun, the leaves and flowers of the grass are not burnt to a crisp, and then pitched and doubled together in a such a manner as to break off the finer and most valuable part of the hay. The juices of the hay are not so much dissipated as by the ordinary exposure, and the hay is consequently sweeter and more nutritious. Judge Van B. says he has never known *mow burn*, or injury of any kind from putting hay into the stack or barn, however green it may have been,

provided it contains no other moisture than its own juices.

There is one feature of Judge Van Bergen's operations which is peculiar. He has had a considerable part of his farm under constant cropping for 43 years, principally in grass, but sometimes undergoing a rotation in grain, &c., during all of which time, it has borne good crops, *without receiving manures of any description excepting plaster*. This shows great original strength of soil, and it shows also admirable preparation and management. The ground is thoroughly prepared before sowing and it is well seeded. Cattle are never allowed to be on it in spring nor when the sod is soft; it is kept free from weeds and mosses, and one crop only is taken off in a season, the aftergrowth remaining upon the ground to afford nourishment to succeeding crops.

Deep, thorough tillage, on an originally good soil, comes as near a substitute for manure, as it is possible to attain, as was clearly shown by Jethro Tull, 150 years ago, and as again exhibited on the farm we have hastily noticed above. Whatever there is in the soil fitted for the food of plants, is by this careful tillage, better prepared for assimilation by them, than when it is suffered to remain compact, and this condition of it allows the free and beneficial circulation of moisture and the gasses, which make up from 94 to 97 per cent. of the aggregate weight of the crops. Yet, whoever infers from this example, that manures are unnecessary, should look at the grass in some adjoining fields belonging to Judge Van B. One of these, containing a small patch of one and a third acres, but which had been liberally manured when laid down to grass, yielded five tons and 1,960 pounds, by actual weight, at one cutting. Strong, wire-spring-tooth horserakes are used in the spring for loosening or scarifying the sod and raking off the old fog.

There is a comparatively small amount of stock kept on this farm at present, and the greater part of the hay is pressed and sent to the New-York market. The expense of cutting the meadows, producing one and a half tons per acre, is 87½ cts.; and the whole cost of curing, gathering, storing, packing, and sending to market, about $5.50 per ton. The average product is from one to one and a half tons per acre, and the price in market varies from 40 to 75 cents per 100 lbs. The profits from this farm may therefore readily be estimated.

Judge Van B. subsequently drove us to the beautiful farm of his son-in-law, Mr. Reed, three miles below Coxsackie, on the summit of that commanding range of hills, that, throughout almost its entire course, bounds the Hudson. We here found extensive fields and meadows, unsurpassed in cleanliness of cultivation; large and productive orchards; fine gardens and groves, and hills and knolls redeemed from barrenness and desolation, and by the proper application of muck or peat that exists in unlimited deposits at their base, brought at once to the highest state of productiveness. Lime is also used with success, in connection with the above. We have never seen a farm under better nor more thorough and systematic cultivation.

Reader, you have here detailed, a system of farming, which has made those wealthy, who have had the good sense to adopt it. Go thou, and do likewise.

CIDER MAKING.

Qualities of Apples.—The best apples for cider are those which yield a juice of the greatest weight, or specific gravity; and it is believed to be true, that cider made from trees, grown on a strong, clayey soil, has more strength, and will keep better, than that made from trees on a sandy soil. The red and yellow color of the rind is considered as good indications of cider fruit, and apples of the various degrees of these colors are decidedly preferable to those of which the rinds are green. The pulp should be yellow, the taste rich and somewhat astringent.

Apples of a small size, if otherwise equal in quality, are always to be preferred for cider to those of a larger size, in order that the rind and kernels may bear the greatest proportion to the pulp. Large, fair apples afford the weakest and the most watery juice. Again, the dryer kinds of apples, or those grown in a dry season, will yield less juice, but the cider made from them will be proportionably rich. Unripe apples, should also be avoided, as they do not contain sufficient sugar to undergo the vinous fermentation, while they contribute to render the liquor acidulous and rough. Sour and harsh-tasted apples are usually preferred by farmers, as it is generally believed that they make the best cider. This arises from the fact, that they contain less sugar and more malic acid; and the presence of the latter impedes the conversion of alcohol into vinegar. But cider made of such apples. can never equal in quality that prepared at a low temperature from fruit abounding in sugar.

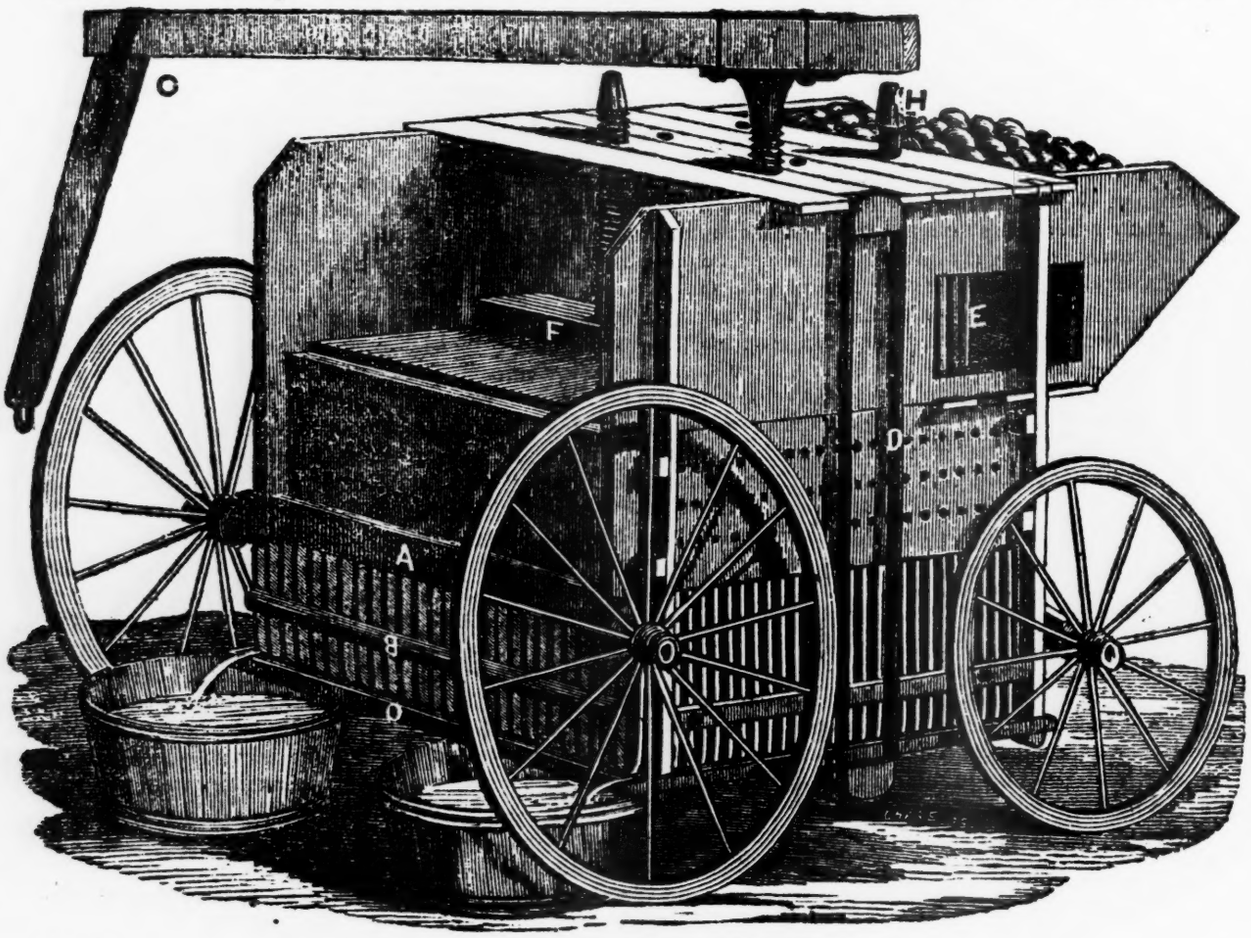
The most celebrated cider apples in this country, are the "Harrison," the "Camfield," and the "Newark Sweeting," grown in the vicinity of Newark, New Jersey; the "Virginia Crab," much cultivated in Pennsylvania and Ohio, and the "Granniwinkle." Besides these, there are numerous other varieties cultivated throughout the country of every shade of merit. Among these the cullings of the "Newtown Pippin," the "Baldwin," the "Rhode Island Greening," and the "Roxbury Russet," are, perhaps, the most valuable.

Ripening and Storing the Fruit.—The apples should be suffered to hang on the tree till ripe enough to fall off themselves. When gathered, they should be bruised as little as possible, and laid in heaps on the ground, in the open air, fully exposed to the weather, unless there are frosts at night, in which case, they should be carefully covered with straw or hemlock boughs; or, what would be still better, to store them in heaps in a shed or room, and there carefully be kept from rain and dew. Each sort should be kept separate; or, if this cannot be done, those ripening at the same time should be ground together. The object of this is, that the fruit may be reduced in the mill into a homogeneous mass; and this can only be done by choosing fruit of the same kind, or, at least, of the same degree of mellowness to be put into the mill at the same time. After the apples are ground, the pumice of the several sorts should be mixed, as cider made from several kinds of fruit is always considered the best.

The Cider Mill.—Among modern inventions, we would call the attention of farmers, to the portable cider mill and press, recently patented by Mr. Nathan Chapin, of Syracuse, New York. This ma-

chine is arranged in one compact body, upon a set of heavy wagon wheels; and including these, the whole weighs about 2,700 lbs. It may be drawn from one orchard to another by a single pair of horses, and is put in operation while standing on the wheels. With the power of one horse and the labor of two men and a boy, it is capable of expressing from twelve to twenty barrels of cider per day. The apples are ground by four fluted cylinders, or nuts, which mash into each other, and are within the mill, as at E. These are driven by a horse attached to the sweep C. Below the cylinders, is the press crib, made of perforated plank and grates, and when the falling pomace has formed a sufficient cheese in this, the follower planks and block F, are introduced upon the upper surface. The sweep C, is transferred to the heads of the screws; and the pressing is performed either by hand or horse power. A channel on the margin of the platform O, conducts the cider, which issues through the sides of the crib, into the tubs. When the pressing is finished, the platform is lowered to the ground, the tubs and rear grate B, are removed, and the cheese is drawn out in a mass upon a separate, side platform, by a horse, to any convenient distance from the mill. The sweep is then placed upon the shaft H, of one of the cylinders, and the grinding is again commenced. A band of iron, on each side, shown at D, confines the press beam to the platform during the pressure of the screws.

Grinding and Pressing.—After the apples have sufficiently ripened, and rendered more saccharine, all those which appear to be what is called "black



CIDER MILL.—FIG. 54.

rotten," should be picked out and thrown away; and the remainder slowly subjected to the process of grinding, allowing a free access of air to the fruit till it is reduced to a homogeneous mass, in which the rinds and kernels are scarcely distinguished from the pulp. This mass, usually called "pomace," may then be suffered to remain from 12 to 24 hours, in the large tub or trough in which it is received, fully exposed to the air. It should then be made into a "cheese," by laying it on the press in alternate layers of straw, when, if the weather be cool, as it always should be, the longer it remains before pressing the better the cider, provided it escapes fermentation. In some cases, the pomace is suffered to remain a week or ten days after it is ground, before it is submitted to the press, stirring the mass every day. The cheese may then be pressed for 24 hours, and afterwards cut and made over, occasionally adding a little water, until it becomes sour from fermentation, when it should be abandoned and thrown away. The expressed juice, or cider, should pass through a hair sieve, or some similar substance, into a large tub or vat, whence it is put up in hogsheads or barrels, not quite filled, to undergo the process of fermentation, fully exposed to the open air.

Fermentation.—Much of the excellence of cider depends upon the temperature at which the fermentation is conducted; but this is a point almost entirely overlooked by cider makers in general. In-

stead of placing the apple juice in a cool situation, where the temperature does not exceed 50° F., nor sink below 47°, it is frequently exposed to the full heat of autumn, in consequence of which, much of the alcohol, formed by the decomposition of the sugar, is converted into vinegar, by the absorption of atmospheric oxygen, and thus the liquor acquires that peculiar and unwholesome acidity, commonly known by the name of "roughness." On the contrary, if the fermentation be conduced at the above-named temperature, nearly all the sugar contained in the juice is converted into alcohol, and this remains in the liquor instead of undergoing the process of fermentation. It may here be remarked that, if left to itself, the cider would be subjected to three fermentations: 1st, the *vinous*, which is necessary to give it strength; 2d, the *acetous*, which, if suffered to continue, would soon change the alcohol into vinegar, and proceeds most rapidly at a temperature of 95° F., but at lower temperatures, the actions becomes slower until at about 47° no such change takes place; 3d, the *putrefactive*, by which it would become insipid and totally unfit for use. It is therefore quite evident that if the saccharine juice of apples, or any other fruit, be made to undergo the "vinous" fermentation, in a cool situation, less of the spirit, resulting from the transformation of the sugar, will be converted into acetic acid, and consequently more will be retained in an unaltered state in the liquor, and tend not only to improve its quality, but by its conservative and chemical action, to precipitate the nitrogenous substances, or exciters of future change.

The cider maker should watch the height of the first fermentation, which is indicated by some of the impurities, contained in the liquor, issuing from the bung hole of the cask, or rising to the top, in the form of spume, or froth. The fermentation, let it be remembered, should be slow in being developed, so that the juice set in October or November may continue to "work" until March, April, or May. Until this time, the cider will be sweet, but then, will become pungent and vinous, and will be ready to be "racked" or drawn off for use. At this period, if the vinous fermentation has not ceased, it may be stopped by adding to each barrel a gallon of sound, old cider, or by exposing the cask to a cooler air.

Storing and Subsequent Management.—Cider should be stored in a cool place, of a temperature not varying far from 50° F., and should not be disturbed before it becomes sufficiently mature. Each barrel should want from one to two gallons of being full, in which state it should stand exposed to the open air, with the bung put lightly over the hole, till the end of March, when the liquor should be racked off into clean casks, which should be completely filled, and the bung firmly driven. In performing this operation, the lees should be filtered through linen bags.

The preservative properties of cider depend upon its natural strength. That of the best quality contains about nine or ten per cent. of real alcohol, while the ordinary kinds will yield only from four to six. Common cider will rarely keep more than five or six years, and seldom improves after the second or third year; but when brandy is added, to the amount of a gallon to each barrel, and it is carefully attended to, it will keep from 20 to 30 years.

Preparatory to bottling cider, which should not be done before it is one or two years old, it should be examined, to see whether it is clear and sparkling. If not, it should again be racked, and carefully kept another year. The night before it is intended to be put in bottles, the bung should be taken out of the cask, and so left until the next day after, as, if this is done at once, many of the bottles will burst by keeping. The best corks and Champagne bottles should be used, and it is common to wire and cover the corks with tinfoil, after the manner of Champagne. A few bottles may be kept in a warm place to ripen; and two or three raisins, or a small piece of lump sugar, may be put into each bottle before corking, if the beverage be wanted for immediate use, or for consumption during the cooler portion of the year; but for warm weather, and for long keeping, this is inadmissible. The bottled stock should be stored in a cool cellar, where the quality will be greatly improved by age.

CONSTRUCTION OF A GRANARY, OR CORN HOUSE.

GRANARY.—FIG. 55.

CONVERSING with an intelligent farmer, a few weeks since, on the subject of agricultural buildings, he remarked, that he considered a granary, or corn house, indispensable on every farm, especially on those where corn or grain is grown to any extent; and, furthermore, he said that he believed, since he built one on his place, he had saved grain enough, yearly, to fatten a hog to a weight of 300 pounds; and judging from the quantities I have seen carried off, and wasted by rats, I am inclined to his opinion. Most farmers have experienced more or less trouble from these mischievous animals, by the loss of grain, eggs, young poultry, by the undermining of walls, and by various other tricks; consequently, I presume any specific to lessen their depredations, or numbers, would meet with favor by that class of our people. The first

great cardinal and starting point with me is this: "Lead them not into temptation." House all your grain in properly-constructed granaries, and you remove the first great cause of temptation. If you have no granary, build one at once, and take my word for it, you will never regret it; and in order to assist those in need, I send you the adjoining sketch, which, I think, combines neatness and convenience:—

Mr. Buckminster, of the Massachusetts Plowman, says, that rats and mice, are the most unprofitable stock that a farmer can winter; and this, I suppose, no one will gainsay. Still, we all know very well, that, if grain is unprotected, the farmer will have to winter a herd of this kind of stock—aye, and summer them too.

Fig. 55, is a sketch of a granary, or corn house, which explains itself. The size can be varied to suit the wants of the owner; only mind and let it be large enough to hold all the grain or corn you can raise. The roof should be steep, tight, and well shingled, with a good projection; the sides covered with strips of board, four inches wide, leaving spaces of half an inch between the ends, boarded tight, with a window at each; and a good batten door, with a lock on it, completes the establishment.

The interior arrangement can also be varied. A very good plan is, to have two or three tiers of shoal bins, on each side, for the various kinds of grain, while our great staple of New England, Indian corn, should occupy the floor. A wide shelf, also, should be put up at the back end, for all grain measures and bags, where they should be kept when not in use, so that they may always be ready when wanted, keeping in view Dr. Franklin's motto, "A place for everything and everything in its proper place." The exterior can be made a little more perfect, by furnishing the sides with sliding shutters, to cover up the spaces between the boards in foul weather; but as the design has a projecting roof, this would hardly be necessary.

J. B. Davis.

Boston, July 10th, 1849.

VISIT TO COL. CAPRON'S.

Col. H. Capron, of this place, is one of the most intelligent, and his works show him to be one of the most enterprising improvers that I have ever met with. He has now growing, one of the best fields of wheat I ever saw; and this upon land that would not produce five bushels to the acre, a few years ago. Some of his cattle are equal to any northern herd. He has, also, some most superb horses, and most decidedly the best mule teams that I ever saw in harness. He keeps 80 cows, the milk of which being made from his most excessively luxuriant clover fields, commands the highest price, (13 cents per gallon,) in the Baltimore market. His barn and stables, as well as all the arrangements about the dairy, and as every other of his farming operations, are a little superior to anything else in the south, and, in my opinion, equal to anything in any country.

Nearly all of his land that required it, Col. C. has under-drained, making use of hard bricks to form the drains. The benefit of draining some pieces of land that did not, to one unacquainted with the effect, seem to require such an improvement, have been wonderful. Indeed, all his operations have been so. For he has not only, by his own energy, built up a large manufacturing village, but has shown to all the people around him, that these old, barren, tobacco fields, can be made productive; and, at the same time, be made to pay all cost and produce a profit.

Solon Robinson.

Laurel Factory, Md., June 7th, 1849.

GLORY vs. GOOD HUSBANDRY.

We frequently see the announcement in one or other of the states, and not unfrequently among our larger cities, of the presentation of a sword to some military hero in our late war with Mexico, the cost and workmanship of which are elaborately paraded before the public; but we have not yet seen the first notice of gift, diploma, nor even commendation, to any one who has distinguished himself or benefitted his country by the improvement of the soil, or increasing the agricultural products of the United States.

The man who leaves the world, with 10,000 less persons in it, bereft of life through his agency, is worthy of all honor and public gratitude; but he who has shown how 10,000 persons could live in comfort and happiness, where scarce 1,000 could have subsisted in penury, is unworthy any notice or reward. Such at least is the *practical* judgment of bodies legislative, and cities corporate.

The soldier who does his duty in a just war, is worthy of his pay, rations, and a respectable station in society. But is he entitled to aught beyond his equally meritorious, and perhaps even more laborious countryman at home, who has toiled and suffered to promote the good of his fellow beings, as the other has necessarily been engaged in their injury and destruction?

The spears and swords shall yet be beaten into pruning hooks and plow shares, but at the rate we are going on, it will be some time before this is done in the United States, among our professedly intelligent, reasonable, agricultural community.

Fact in Planting Lima Beans.—On several occasions, complaints have been made, that Lima beans, sold at our warehouse, did not come up well, which was attributed to some bad quality in the seed; but the complaints appeared to us to be unfounded and unexplainable, as others, who bought seed from the same parcels, succeeded in raising good crops. In a recent conversation, however, with Mr. Jacob M. Vreland, an experienced market gardener, of Bergen Point, New Jersey, he informed us, that, if the beans are planted in a rather stiff soil, with their flat sides upward, or parallel with the surface, few, if any of them, will vegetate and grow; but if the eyes of the beans be carefully placed downward, at the time of planting, they will generally come up, if not covered with more than three fourths of an inch of earth.

Effects of Certain Manures on Plants.—As a general rule, nitrogenous manures force the green leaf and stalk; the phosphates dispose to seed; the sulphates and salt to solidity; and potash to healthy and vigorous growth.

HINTS ON THE MANAGEMENT OF HORSES.—No. 4.

Stables.—As to the sizes of stables, they may be of any dimensions, proportionate to the number of animals to be accommodated, provided the important considerations of adequate room and ventilation are duly considered. Strong plank divisions are necessary between each horse, though these need not extend over five feet in the rear of his head. They should be from four to five and a half feet wide, according to the size of the horse, to allow ample room for lying down and rising, without cramping or straining the animal. The horse that is used through the day, requires to lie down at night. He may, it is true, continue to live along and work, for an almost indefinite period, where the only sleep or rest he gets, is on his legs. But this is not natural, neither is it economical to his owner. When deprived of the comfort of lying in a roomy, airy position, and enjoying a perfect relaxation, a certain proportion of his muscular ability is abstracted, which he would otherwise retain, to expend in his speed or hard work. He has to eat more, and accomplish less than if treated in accordance with his natural habits, and the dictates of humanity. To tempt the horse to lie down as soon as his stomach is filled,

An abundance of litter ought to be provided, and if this be kept principally near the manger, it will serve his purpose for bedding, without much waste, provided the urine be drained from the horse by a slightly-inclined flooring, which should invariably be done. By shaking up the litter that has become damp, and allowing it to dry, it may be used again, unless from its abundance, it be an object to convert it into manure as speedily as possible, when it may be thrown upon the muck heap as fast as it becomes saturated.

There is no objection to double rows of stalls, provided they are so far apart, that vicious animals cannot hit each other from opposite sides, nor strike such as are led behind them. Where large numbers are kept together, there is some economy in room, and an advantage in ventilation, by using double rows, having an ample passage between them. Strong floors, incapable of breaking through, are important, if a horse's legs are to be kept whole. Almost equally necessary is it, that the sides, or divisions of the stalls, be smooth and sound, not splintered, nor with jagged corners, against which a restive horse may frequently injure himself.

Stable doors, and the passage to the stalls ought to be so wide and high, that a spirited horse will not be liable to injury in passing them; and they should be free from any projecting staples or other sharp points, either of wood or iron, that can possible gall them. A horse can get through a door three and a half feet wide, if he walks leisurely; but it is better that it always be four and a half; and if there are many inmates, it is still better to have double doors, swinging six to eight feet, which allows for passing two at a time, and facilitates ventilation.

Height in stables is essential, as it tends materially to purity of air, and prevents injury from striking the head against the timbers.

Light for stables is too much neglected, but this is an important consideration. If the stable is small, it may be adequately lighted by windows in the sides, or at the rear of the horses. A better plan, however, is to have a sky light from the roof, (where no flooring above is necessary,) and thus the light is evenly diffused throughout. But if no other opportunity is afforded, then small windows may be placed in front, if elevated above the heads of the animals, and the light will thus be thrown down in front and around them, without producing a glare, which is so prejudicial to their sight. A horse can see tolerably well in the dark, owing to the expansibility of the pupil of the eyes; yet, as this organ is intended for use when exposed to a full sunshine, it is important that the pupil be not habitually enlarged, for the purpose of sufficiently concentrating rays to see by. The effect is peculiarly bad, when the horse is brought suddenly into the light. This causes pain and a momentary blur in the eyes. The privation can never be long persisted in without serious detriment. Another bad effect, from the privation of light, results to the groom, as he has an excuse for neglect of that cleanliness, which ought to be preserved in every well-kept stable. Another advantage of well-arranged windows is, to be found in the facility for ventilation which they can supply. Fresh air is attainable wherever there is light, though the converse of the proposition is not always true. Occasionally it is better to shut off the light when the animal requires undisturbed rest, or for the purpose of ridding him from the torment of flies.

Racks, mangers, and feeding troughs are important fixtures in the arrangements of stables. Many discard the former entirely, but they have their advantages. When hay is not cut before feeding, it is always better to be eaten from a rack. By having this properly elevated, it habituates the animal to throw his head well up; and if sufficiently guarded, it prevents the waste too often associated with open boxes. But racks ought invariably to be accompanied with a trough at the bottom, which will catch the fine leaves, stems, and seeds that are shaken out of the hay, and which constitute its most nutritive portions.

Racks are usually made of wood, but round iron bars would be better and more durable; and if infection from a diseased horse is ever communicated to them, it is more easily removed. If of wood, the bars should be of hard timber, with a perfectly smooth surface. About two, or two and a half inches, is a suitable distance for them. The front ought to stand perpendicular, to facilitate reaching the hay without throwing the nose upward, which, in this position, is liable to inhale fragments of the hay. This is particularly objectionable for horses subject to heaves, or any affection of the lungs. The back of the rack should terminate at the bottom in contact with the bars, and slope upward high enough to contain from 10 to 15 lbs. of hay. The latter quantity should be seldom fed at once; and the former quantity, or even two thirds of it, is as much as is generally required for horses that are well grained. It is better to give less and feed oftener, as whatever is left over becomes soured or distasteful to the horse, from his breath. Room is economized by placing the rack in one corner of the stall, where it need occupy but little

space, if the front be made circular, or form a straight line across the corner. Advantage should not be taken of this position to supply two horses from the same rack, on either side of two adjoining stalls. Each animal should have his own allowance of forage in his own dish, and be in no manner dependent upon his neighbor. The food is thus always under the control of the groom. But when fed from above, one aperture may serve for throwing down the hay into two, which are separated only by a thin board. When thus fed from above, a trap door should close the aperture tightly, to prevent the ascent of foul air from the stable, to impregnate and injure the hay. But where there are many animals together, unless the floor overhead is perfectly tight and well aired, it is better to have the hay on an adjoining floor; and it can be rolled compactly together and thrown over the top of the rack from the stall. A pronged hook will serve to draw to the floor above, any superfluous hay; or a door at the back, or if of iron, a small door in front, may be opened for this purpose.

Many persons prefer feeding cut hay, straw, or chaff, mixed with their oats or other provender, in which case, the rack is entirely superfluous. It must be confessed, that where arrangements are properly made, and not at loose ends, as in some badly-managed stables, the latter method is by far the better and more economical. In this case the manger requires to be placed breast high and sufficiently deep and wide to contain ample feed. This must be either of hard, smooth wood, or iron, tight, and firmly secured. Where the rack is used in one corner, a box for the horses' grain should occupy the opposite one, unless it be attached to the base of the racks.

Water may be brought into the stable when perfectly convenient, but this is not essential. If introduced, however, it should be entirely under the control of the groom, and let in or turned off at pleasure. It should flow only into a stone or iron basin, unless a trustworthy groom is employed, who will keep such as may be made of wood in a perfectly clean condition. There is, no doubt, an advantage in having water before the horse that he may drink as he requires it.

Salt is a preventive of many maladies, a corrective of the stomach, and should be supplied to the horse as he needs it. The most convenient mode of giving it, is by placing a lump of the *rock* or *mineral salt* in his manger, where he can lick it at his pleasure.

PROFITS OF ORANGE-COUNTY FARMING.—Mr. Jesse Owen, of Warwick, Orange county, N. Y., on a farm of 136 acres, made, in 1847, from six cows, 1,080 lbs. of butter, which, together with six calves and seven spring pigs, that were fed from the refuse of the dairy, sold for $255, or $42 50 cents to each cow. In 1848, the same number of cows, netted, in calves and pigs, $43.50 each. This year, (1849,) he has sold, from the same number of cows, six calves, at the age of four weeks, for $38.55. The other stock of this farm consists of two horses, seventeen steers and oxen, two calves, ten hogs, and eighteen pigs. The amount of hay cut per annum, is about 50 tons.

MR. ROBINSON'S TOUR.—No. 8.

Louisiana.—On my way down the coast, to-day, from Algiers, opposite New Orleans, I first saw cane planting. The ground, which had corn upon it last summer, was broken up with four yoke of oxen, and thrown into beds eight feet from centre to centre, and a furrow opened in these with a double plow, followed by a triangular block of wood, to press out all the lumps, and make a wide, smooth furrow, into which the canes were carefully laid in double rows, and lightly covered with hoes. A great abundance of cuttings are used to insure a good stand. It requires one acre of growing cane to plant five acres.

J. P. Benjamin, Esq., 18 miles below the city, has yet forty acres of cane to grind. He has a complete Relieux apparatus, and all the appurtenances for making refined loaf sugar, direct from the cane. The refinery is under the direction of his brother, who is very successful in the business, and is making as good an article as ever need be called for. The expense of the refining apparatus was $33,000. By this process, the sugar is not only increased in value, but five sixths of the molasses is used up; the remainder, that will not granulate, is sold as "sugarhouse molasses," which, though very thick and apparently good, is really the poorest molasses in market. The mass of it is the *glucose* of the cane, with just saccharine enough to sweeten it. I saw here, in operation, one of Bogardus' eccentric mills, to grind sugar, and another to grind corn; and both giving much satisfaction.

Mr. Stephen D. McCutchon plows his land with three mules, planting 6½ feet apart, and opens the planting furrow with a "fluke," instead of a three-cornered block. The fluke is a very large double moldboard, iron plow, drawn by two good mules. The moldboards are made of boiler iron, 3½ feet long. He cuts his cane for planting, all in pieces, two feet in length, being careful to strip off all leaves. He has, this year, manured 40 acres as an experiment. But he hauls his bagasse out upon the levee, and throws it away.

Myrtle Grove, the next plantation below, owned by Messrs. Trufant and White, use about half of their bagasse for fuel. Mr. Trufant told me he could make steam with bagasse easier than with wood or coal. This plantation has no timber land. All back of the narrow strip in cultivation, is wet prairie, and would be very rich, if drained. They have a canal twenty-two feet wide, three feet deep, and three miles long, to lead water away from their steam-draining machine, by which only can the back part of the land, now in cultivation, be kept free from water, by an engine of 10-horse power. The water is lifted from two to four feet by a paddle wheel twenty feet in diameter. This works only one day a week, burning a cord and a half of wood, except in uncommon wet weather. The water, in the meantime, accumulates in the large leading ditch, on the back side of cultivated lands, two and a half miles long. Outside of these ditches, cattle are pastured on coarse prairie grass. The wood for this place has to be caught or bought, and is worth from $2.50 to $3 a cord. Coal is worth 20 cents per bushel. The cattle that run upon this prairie land, become almost amphi-

bious. They are fat in summer, and *live* through winter. None but the native, or Spanish cattle, which are really a very fine breed, can stand such fare, particularly with ten musquitos to every spear of grass they fish up from its watery bed. The soil of this place is unusually light, but has had the cream taken off by exhausting crops, without any return. Messrs. T. and W. purchased the place last year, of Mr. Packwood, the elder, at $225,000, with all on it. There are 8,000 arpents of land, 700 in cultivation, 450 in cane last year, and 575 this year, balance corn, &c.; 139 slaves; 80 field hands; 55 working mules and horses; 50 oxen; 20 carts; 40 plows; 200 cattle, and a few sheep, but no hogs; good sugar house and machinery, with Relieux apparatus of three pans capable of making 12 to 14 hogsheads a day, or three hogsheads at a strike. The sugar house and machinery is valued at $50,000. The other buildings are good; the negro houses built of brick, with elevated floors, 32 feet square, divided into four rooms, with chimney in the centre. There are twelve of these. The last crop was 700 hogsheads of clarified sugar, which usually sells, in hogsheads, from 5 to 6 cents per pound. The molasses will not probably exceed 20 gallons to the hogshead, if it does that.

The next place below Myrtle Grove, is that of Col. Maunsel White, heretofore described in the Agriculturist, by R. L. Allen. His front fence, some three miles long, is made of three boards, whitewashed, upon posts set in a bank, upon which is a hedge, or rather thick row of sour orange trees, many of them loaded with fruit glittering through the handsomest foliage in the world. Col. White, as well as his next neighbor below, Robert A. Wilkinson, and, in fact, nearly all the large planters on this part of the coast, have to use draining machines. The strip and tillable land is very narrow, though all the back lands might be drained at less expense, in the aggregate, than is now done to drain a small portion of each plantation. Such a system as is in operation in Holland, would soon make the swamps of Louisiana tillable, and bring many thousands of acres of the finest sugar lands in the world into use, which are now only fit for breeding alligators, musquitos, and fevers.

Mr. Wilkinson lifts his water five feet in an immense volume, say 1,000 gallons a minute. This drains 400 arpents. He has 1,000 arpents in the tract, 200 of which, in front, has elevation enough to drain by ditches, and the remainder by machinery. He designs to put the back lands in order for rice, using the same water that he lifts from his sugar land, to flood the rice fields, when needed. Mr. W. believes that all these lands could be drained by windmill. His father, J. B. Wilkinson, (son of the old General,) has lived here, on the adjoining place, twenty-eight years. The cane upon this plantation, and several others near, is as green as in summer. Mr. W. makes refined loaf sugar direct from it, by Relieux apparatus. So does Mr. George Johnson, the next place below. Robert A. Wilkinson makes refined, (hogshead,) sugar by Howard's vacuum pan; and Mr. Osgood, a few miles below, makes the same kind by vacuum pans from the Novelty Works. Mr. Osgood has greatly increased the product of his land by deep plowing, and the use of subsoil plows, abundant ditching, and manuring, at the rate of 100 cart loads to the arpent, with old rotten bagasse, stable manure, and pea vines. Having no wood, except drift, he saves bagasse for fuel, or else would make manure of it, as he has proved its value to be great when fully rotted. His front fence is two and a half miles long, nearly all formed with a hedge of Yucca gloriosa, called here, "Spanish bayonet," "Pete," and several other local names. Although rather ragged in appearance, and interrupted by sundry negro paths, it is a good fence. Mr. O. assures me that no animal, not even a hog, will attempt to go through one of these paths. The points of the leaves are so hard and sharp, that everything is afraid to come near it. It needs topping every year, and all the tops that fall between the rows are allowed to remain and grow, and those that fall outside must all be removed, or they will grow and increase the width of the hedge row two much. The annual trimming and growth of new plants every year, is the whole secret of keeping up these fences. When they are neglected, they soon become unsightly and inefficient. The first setting of the hedge is very easy, as it is done by cuttings slightly planted in two rows, about two feet apart, and ten or twelve inches from one to the other, set opposite to the spaces of the opposite row. After getting large enough to trim, say in three or four years, the spaces all fill up with new plants. I think it the best hedge plant for this climate and soil, that I know of. Mr. O., however, is about to try the bois d'arc (Osage orange). I have no faith in his success, as it naturally grows to a tree.

To show what a little energy and determination may accomplish, in time of trouble, I wish to state that Mr. Osgood has an orangery the fruit of which he has just sold on the trees for $550, besides making a very large reservation for himself and friends. But to the point. When all the orange trees were winter killed, in 1834–5, Mrs. Osgood, then living, immediately had the present orchard planted, the trees of which, as large as my body, and now 40 feet high, are loaded with most delicious-looking fruit. There are also an abundance of lemons here, too. So much for the active energy of woman, and determination to have an orchard, notwithstanding the loss of one set of trees. There are many other places where oranges are plenty, but many others where there are none. But very few persons think of growing them for sale.

Mr. Osgood once built a railroad through the centre of his plantation, which is long and narrow, to bring the cane to the sugar house; but, after a few years' trial, he found it did not pay cost, and pulled it all up, except from the sugar house to the river bank, and from the bagasse sheds to the sugar house. Although these railroad experiments continue to be tried by persons as sanguine in the belief of their advantage as was Mr. O., yet I have no doubt, that they will all follow suit. For the use of only six or eight weeks, when timber will not last over six or eight years, and when the cane has to be loaded into carts to be brought to the cars, however pretty the theory, the practice is not so

perfect. A plank road would undoubtedly be better, and that would be expensive, unless the wonderful rapid decay of timber could be prevented.

Mr. Osgood is one of those who keeps sheep for somebody else to shear. He told me, that, a few years ago, he had no trouble in getting his sheep sheared. Every spring, one of them 'cute Yankees used to come along in his boat and shear the sheep and carry off the wool without any trouble.

Yesterday, when I left Mr. Wilkinson's, he was still cutting cane, growing green as ever; though this is unusual.

January 16th, 1849.

FARM OF MR. BOLLING, IN VIRGINIA.

One of the most interesting places that I have visited, during my long journey through the southern states, is the farm of Robert B. Bolling, at Sandy Point, on the James River, 70 miles below Richmond, and 65 above Norfolk, at the junction of the Chickahominy. It is the old Lightfoot estate, and contains about 7,000 acres, 2,700 of which, in one enclosure, Mr. B. has in cultivation; that is, 1,000 acres in wheat, 535 in corn, 50 in oats, and the remainder is one half in clover, and the other half in fallow, including the necessary ground for yards, gardens, buildings, and roads, which are plenty and good. Of course, the quantity of acres, in the different crops, vary slightly with each year.

Mr. Bolling resides mostly in Petersburg, and the farm is under the superintendence of Mr. Nichol, a very intelligent Scotchman; yet, it is plain to see, that the owner, unlike many others, is the master spirit that guides all. Having heard of the vast improvements that he had made upon this old worn-out place, which came into his possession a few years ago, I called upon him at Petersburg, and expressed a desire to see it; when he readily offered to go down with me, so that I had the pleasure and advantage of his company while there. When he came in possession, in 1835, the yield of wheat, per acre, was three and a half bushels; though he thinks a fair yield, if the season had been good, might have been nearly double that. The average, for several years, has been from 15 to 18 bushels, and upon some lots of one to three hundred acres, he has averaged 24 to 37 bushels. If it had not been for the frost, in April, it would probably have averaged, this year, over 20 bushels upon the whole thousand. This has been brought about principally by lime. The first dressing, he gave fifty bushels to the acre; the second one, thirty five bushels; and the third one, the same; in all, 120 bushels. The present cost of slacked lime, at his wharf, is six and a half cents a bushel. Some of his cost more. The former average yield of corn was ten to fifteen; now thirty five bushels to the acre. His crop of corn, last year, was 18,000 bushels, 12,000 of which sold at 45 cents on board the vessel at home. The remainder, as large as the pile may seem to some of our New-England farmers, was needed for consumption upon the place. Mr. B.'s wheat crop of last year was 14,000 bushels, which sold on board at 85 cents. The highest price, any year, $1.30. Average price, $1; average price of corn, 55 cents; highest price, 90 cents. Besides lime, he uses plaster, bones, manure, and dry straw, as fertilizers, and thus produces most abundant crops of clover; and so, not only keeps up the fertility of the soil, but, by this course, has greatly more than doubled the crops, and made the farm very profitable; but it is increasing in fertility and value every year.

Mr. B. pursues the five-field system; that is, a rotation of, 1st, corn; 2d, wheat; 3d, clover; 4th, wheat; 5th, fallow. Upon the fallow, which, however, is well coated with volunteer clover, the straw is spread, and with lime, if required. He commences seeding in, first week in October, and finishes, if possible, by 10th November; quantity of seed, per acre, from 1¼ to 1½ bushels; harvests, 15th to 20th of June; cuts wheat with cradles. He thinks, where laborers are plenty and cheap, that reaping machines are not an object of importance. He owns 180 servants, one half of whom are working hands in the field; and during harvest he hires 80 or 100 more.

As soon as the wheat is harvested, the wagons commence bringing it to the granary; and here the ingenuity of man and the power of steam begin to show how wonderfully this great giant can be made to help the cultivator of the soil. A constant stream of sheaves are flying from the wagons outside, and as they light upon the floor, are caught up, the bands cut, and thrust into two great threshing machines, that stand side by side, and this is the last that man is required to do with grain or straw. The one passes out, and far away from the building; and the other, after falling down into the winnowing machine, is thus cleaned, and then taken by elevators to the top of the three-story building, and there distributed into the different store rooms, which are capable of holding 40,000 bushels. A thousand bushels can be thus threshed and put up every day. When sold, and ready to be shipped, it is let down through a spout into a car that runs upon a railway directly over the hatchway of the vessel, lying at a fine new wharf, a few hundred feet from the granary; and in one second of time the car load is emptied into the hold, and in two minutes more is back, and ready for another load.

The largest crop of wheat ever raised upon this place, before Mr. Bolling commenced improving it, was 7,000 bushels. Mr. B.'s largest crop, was 17,000 bushels. The increase of one crop alone, is sufficient to pay for all the improvements of the fertility of the soil, and leave a handsome surplus. The wheat barn, which cost $8,000, is 36 by 80 feet, three stories upon one side, besides a cockloft floor. To the same building is joined a sawmill, grist mill, plaster mill, and bone mill, besides the threshers and cornsheller, all of which are driven by a sixteen-horse-power engine, costing $1,600, and all built in the most permanent and substantial manner.

The team force upon this place are 39 horses and mules, and 36 oxen—always runs twelve plows, three mules to each, and as deep as they can pull it through a free, clayey-loam soil, which is comparatively level. The other stock upon the place, 125 head of cattle, 150 of sheep, and 140 hogs.

Corn is planted from April 25th to May 5th, 5¼ by 1¼ feet apart, covered with a harrow, the lumps scraped off with a board, tended with double-shovel plow, and the corn stalks cut and spread like straw

upon the surface to rot. But it is found that this system of shading the ground with straw, is more beneficial than a good dressing of manure without shade. (*a*)

In summer, the stock are all grazed upon the appropriate parts of the place, under charge of a herdsman, much cheaper than they could be by a vexatious system of cross fences.

Mr. B. has 4,000 acres of timber land, which he offers for sale at the very low price of $20 per acre. The timber, so near such a navigable river, would more than clear the land, and then the soil would be as good as that which he has in cultivation. The farm, including, say 500 acres of timber, is valued at about $40 per acre, . . $132,000

180 negroes, at $300 average, each, .	54,000
125 head of cattle, at $10, . .	1,250
150 sheep, at $3, ...	450
140 hogs, ...	500
40 horses and mules, $60, . .	2,400
6 ox carts, 3 tumbrils, 8 wagons, 2 log do., ...	1,000
13 plows, at $15, ...	195
Other tools, ...	1,500
	$193,295

The simple interest upon all this, at 7 per cent., would produce the snug little annual income of $13,530.65. But the sales amounted to $17,300, for corn and wheat last year, $3,870 more than simple interest, from which, however, the current expenses must be deducted. The amount of these, I have not now on hand. Mr. B.'s people are all well fed and clothed, and have excellent houses, which, unlike the more southern fashion, are all scattered over the place—a plan that is, in some respects, preferable to that of congregating them in villages.

Many of the roads through the place are lined with red cedars, which make beautiful drives, and fine shades for man and beast, and add greatly to the beauty of the scene. The whole farm can be viewed from the observatory, on the barn, and including the river and opposite shore, covered with forest and underlaid with immense beds of shell marl, with Jamestown Island in the distance, it presents a scene of surpassing beauty. One of the curiosities of this old farm, is a box hedge, some ten or twelve rods long, twenty feet high, and very thick, which has exhibited the same appearance for the last hundred years. SOLON ROBINSON.

(*a*) This system of shading the ground, is called "Gurneyism," a notice of which is given at p. 203, of our fifth volume.

HORIZONTAL PLOWING.

SIDE hills ought always to be plowed with a *horizontal furrow*, instead of running it up and down, or slanting it towards the bottom of the hill with too great an inclination. This will sometimes require considerable skill to preserve a nearly horizontal position, when the hills are thrown together in all directions, and are short. But with care, it can at all times be accomplished, with the use of a spirit level, or a plumb and square. The furrows are made to circle around the hill and follow them in any direction, however short or crooked, it may be necessary to make them. In many portions of the southern states, the heavy rains falling upon lands inclined to wash, have worn away nearly all the soil, and left barrenness and desolation where fertility before existed. An inclination of one foot in ten or twelve, is sufficient to lead off the water. This inclination is essential, as if made entirely level, the water would break over and force its own way down the hill, gullying equally bad, as if allowed to follow each of the furrows in this direction.

COL. CAPRON'S IMPROVED WIRE FENCE.

A VERY valuable improvement in the mode of constructing wire fence has lately been made and carried into practice by Col. H. Capron, of Laurel Factory, Maryland. The following description is from his own pen, as published in the "American Farmer;" but all who are desirous of erecting such fence, I think it would be well worth their attention to make him a visit, which would be much more satisfactory than anything that could be written by him or me:—

The fence I have constructed is for an outside fence, to protect against all kinds of half-starved quadrupeds, long-nosed, hungry hogs, by hundreds, included.

For a division fence, where it is only required to fence againt horse, cattle, and sheep, a much simpler and cheaper fence may be made, and one more easily moved. For this purpose, the bottom board and strips may be dispensed with.

I have put the permanent iron posts 150 feet apart. I think the distance should be from 75 to 100 feet, which would add a trifle to the expense, and make a more substantial, durable, and beautiful fence.

I have used No. 5 wire, as I wanted it for hard usage. No. 7 wire will answer quite as well, in most places, and cost less per running foot. The wire which I used was made to order, at the telegraph-wire factory, and in coils of 1,000 feet in length—cost 8½ cent per pound. Good No. 5 wire can be purchased for 5½ cents per pound, in lengths of about 50 feet. This would require to be joined, which, I think, can be better done than at the factory; as, in the joints made at the factory, the wire is twisted too short, more for looks than strength, and breaks easily at these points.

The accompanying sketch will give you an idea of the manner of constructing this fence.

In the framework *B*, *c*, is a wooden cylinder, (in this case, part of an old mill shaft,) about 28 inches in circumference, three feet long, suspended in the wooden frame by gudgeons of 1½-inch round iron, driven into the ends, and secured by a band sunk into the wood, to prevent splitting, and wedged. *D*, is a strong *oak* lever, eight feet long, three by six. *E*, is a granite stone, weight of about 150 pounds, with an iron strap over the lever, to slide up and down, as required, to give the proper tension to the wires, which also raises and falls, to accommodate the contraction and expansion of the wires. *G*, is a bar of iron, 1½ inches square, drilled out to match the holes in the iron posts. *G*, *G*, *G*, *G*, *G*, *G*, are iron hooks, of ½-inch iron, running through the bar *F*, and spiral springs *H*, *H*, *H*, *H*, *H*, *H*, and secured by nuts, as represented in the cut. *This is for equalizing the tension of the wires.* These spiral springs may be

made of $\frac{3}{8}$ iron rods. *I, I,* is a strong log chain, for attaching this iron bar to the cylinder *C*, by a bolt passing down through one of the links, as represented, by which the chain may be taken up or lengthened, as desired. *K, K,* is a bottom

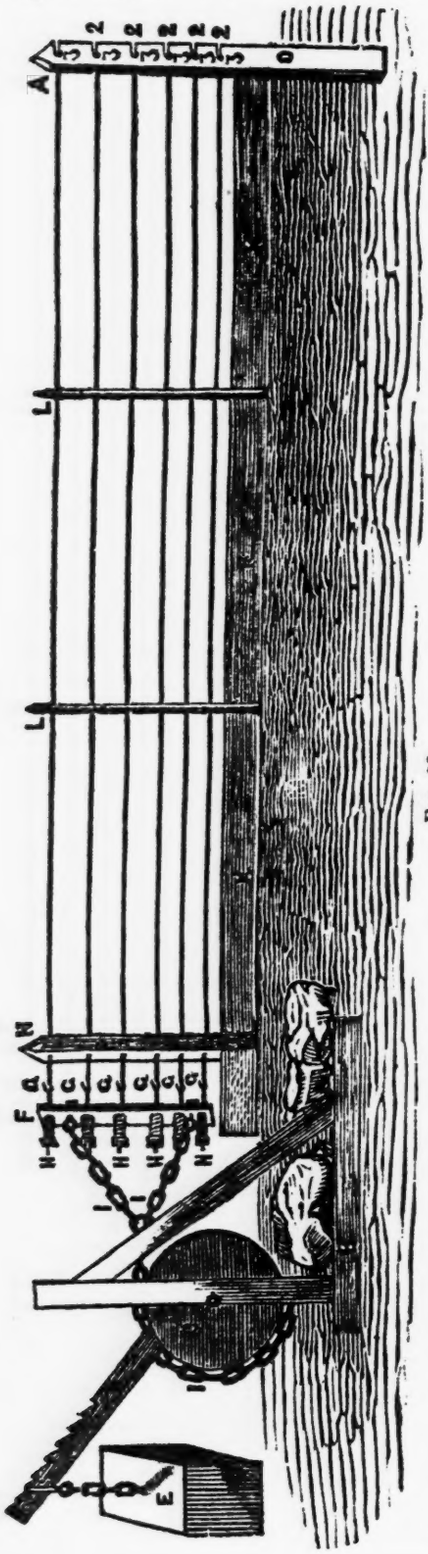


FIG. 56.

The above cut represents an extension of wires in a section of fence, with bottom boards and strips for holding and supporting the same, &c. *A*, represents a side view of the permanent iron posts, made of flat bars of iron, 3 inches wide, $\frac{1}{4}$ inch thick. 3, 3, 3, 3, 3, 3, are holes drilled through, about 1 inch from the outer edge, for the wires to pass through. 2, 2, 2, 2, 2, 2, are slits cut into the bars, just over the holes, to slip the wires into their places. These slits are filled with a hard wood key, to keep the wires down, and trimmed off even with the post. *B*, is a solid framework and lever, with fixtures for equalizing the tension of the wires, and to accommodate the contraction and expansion—keeping them always the same, under every change of temperature.

board, 14 inches wide. *L, L,* are strips, 1 inch by 3, notched upon the wires, eight feet apart, to support the bottom board.

With this powerful apparatus, the wires being in their places, and properly secured at the other extremity of the line, it is evident they can be drawn to any required tightness that the strength of the wires will permit, and the contraction and expansion of the wires be accommodated, by the rising and setting of the lever and weight. This apparatus, in the fence I have constructed, takes up the expansion, and lets out for the contraction, for a line of fence of 3,500 feet, with one bend of about 30 degrees, and sundry inequalities in the surface, or horizontal line.

For short lines of fence, this apparatus may be dispensed with, where hogs are not allowed to run. But, even in short lines, the wires may be so slackened, in a hot day, that a long-nosed hog may wedge his way through. The apparatus itself, however, is easily constructed, and of little comparative cost.

To save trouble in the construction of this fence, I will give you a short direction how to proceed, which I have learned by experience, and may save others some useless expense, which the want of experience put me to.

Put your framework down permanently in the ground, and secure both extremities of the line beyond the possibility of being moved. Bore out, with a post auger, holes $2\frac{1}{2}$ feet deep, 100 feet apart, on a perfect straight line, for your permanent posts.

Set the, (iron,) permanent posts in, and ram round well with stone, and pour in grout. It is necessary to have one very strong post, *N*, (mine is a hollow cast iron, five inches square,) about eight feet from the cylinder, and stayed at top with wires or rods, made fast to the framework, to hold the wires as they are stretched up, one at a time, during the construction. Stretch out one wire at a time; joint it, and make it fast at the further extremity of the line; lay it into its place in the posts, and attach the chain to the end of it; then, by the use of the lever and cylinder, draw it to the desired tension, and key it there in the post *N*. So proceed until all are drawn up. Then attach the spiral springs, hooks, and bar to the wires and cylinder, by the chain, as shown in the sketch; hang on the weight, knock out the keys in the permanent post *N*, and the work is done.

If the bottom board and strips are used, they can now be put on. If large coils of wire are used, they should be put upon a reel before they are unfastened, or they will kink up and give much trouble. In my case, I slipped the coil of wire on the cylinder *C*, and put strong oak pins on each side of the coil, to keep it up snug; it then wound off without trouble.

To remove a line of this fence, knock out the keys 2, 2, 2, 2, 2, 2, in the iron posts; throw the wires out upon the ground; attach a horse or other power to the end of the wires, and haul them round to the new line; set in your framework and posts, and put in your wires. In this way, two or three hands and a horse may remove a mile of fence in a few days.

I have a very simple apparatus for taking the kinks out of the wires, which I will give you a sketch of, when I make up the cost of construction. Good oak, locust, or cedar posts will answer in place of the iron. R.

New York, July 5th, 1849.

Ladies' Department.

DIRECTIONS FOR BOILING RICE.

TAKE one pint of rice, wash it, and put it in soak for two hours. Have ready two quarts of boiling water, with a little salt in it, in a stew pan. Half an hour before you wish to use it, pour the water in which the rice is soaked from it, and with a tablespoon, shake the rice into the stew pan without stirring it, and let it boil ten minutes; then strain the liquid from the rice. Return the rice to the stew pan, and let it steam for 15 or 20 minutes, when it will be done, and the grains will be separate. Add a little butter, and send it to the table.

The above is the proper way to cook rice, which is important to know, as we are now prevented from using almost all other kinds of vegetables. This recipe is furnished by a lady in whose family it has been a regular dish on the dinner table, since 1832.—*Baltimore American.*

TO PREVENT MILK SOURING DURING THUNDER STORMS.

WE have heard great complaints from dairy women, about their milk getting sour during a thunder storm, although perfectly sweet a short time previous. The following plans, suggested by a correspondent, will prevent this in a great degree. All the pans containing the milk, ought to be placed upon non-conductors of electricity, such as blocks of baked wood, pieces of glass, or wood that has been well painted and varnished. The following articles are most easily provided:—Beeswax, feathers, and woolen cloth are also non-conductors, but inconvenient to be used. All these articles will insulate the pans, and prevent the electric fluid from entering, which is the cause of acidity; or is, in fact, the principle of acidity itself. If glass basins were substituted for tin pans, the plan would be better still, and there would then be no necessity for the practice suggested above. The glass would preserve the milk much longer sweet than pans, and the acid would have no effect upon it. We are not aware of any acid that has the least impression on glass, except the fluoric acid. All iron vessels, or vessels compounded of iron, as tin pans, attract the heat very readily, and, of course, sour the milk; and such is the affinity of iron for an acid, that we doubt much if it is ever washed out entirely. Iron vessels, we are confident, are the very worst that could be used for the purpose; they are even inferior to wood.

PITHY HINTS.—Snuff, on the necks and backs of calves and young cattle, will do more good than in the nose of any maiden lady or dandy bachelor; and brimstone bought for the hogs, will not prove that the itch has got into the house. Cards, on the cattle, make them look as much better as children with their hair combed. A clean barn is a hint to the woman who takes care of the kitchen. Good milking stools save much washing in the house. A scraper on the door step saves brooms and dust.—*Exchange.*

HOUSE BUGS.—To prevent these troublesome insects, use bedsteads that have no holes through them, which screw together so tighly as to leave no cavities; use board slats instead of cords; and if there is any appearance of bugs, apply corrosive sublimate and cheap rum, whiskey, or alcohol to the places where they are likely to lodge themselves. It may be applied with a feather only once a-week. If the bugs come out of the wall or floor, set the bedstead where it cannot come in contact with them, and occasionally apply the above-named solution around the bottom of the bed posts and on the floor where they stand.

WORKING WOMEN.—Women, so amiable in themselves, are never so amiable as when they are useful; and for beauty, though men may fall in love with girls at play, there is nothing to make them stand to their love like *seeing them at work.*—*Cobbet.*

Boys' Department.

A DOCILE, SAGACIOUS BULL.

BOYS, when you come to be grown men, and have stallions, bulls, and rams for breeding, on your farms, among other good points, or qualifications, don't forget what we think the most important, namely, a gentle disposition, or, in other words, *kind temper.* Many a person has been killed by ferocious males and even females; you will see, therefore, that, in propagating such animals, you endanger your own lives as well as those of others. Our rule is, however good an animal may be in other respects, if wanting in docile disposition, not to breed from it.

We will now tell you a story of a Durham bull which belongs to Prince Albert, the husband of Queen Victoria, of England. This bull is kept in the little park at Windsor, so called, to distinguish it from the great park, at the head of which stands Windsor Castle, one of the largest and most magnificent buildings in Europe, and the principal summer residence of the Queen and Prince. This animal, possessing a kind temper, had been taught to work alone in a cart, like a horse. He made himself very useful in this capacity; and was of such great strength, that he would take a load of more than 6,000 pounds, (three tons,) along a level road with as much ease, and perhaps more, than any one of you could trundle a wheelbarrow load of dirt not weighing over 100 pounds.

Well, one day, after a hard morning's work, they turned him out into the park to feed and refresh himself on the rich grass that was growing there. In the same pasture was another bull, which proved to be of a vicious temper; for no sooner did he espy a farm laborer from the adjoining field attempt to pass through the pasture, than he commenced bellowing and pawing, and then rushed forward with all his might, determined to gore him to death. The ferocious beast had knocked the man down, and was in the act of stooping to toss him on his horns, when the kind-tempered Durham bull seeing his extreme danger, set off on a full run to his rescue. He came up with such prodigious force as to knock the wicked bull prostrate at a single blow

of his head. He then commenced affectionately licking the fallen man, which so revived him, that he turned over, and perceiving that it was the friendly Durham bull, he at length got strength to rise up, when mounting the back of his dumb friend he was soon carried out of danger.

Now, boys, you will see the safety of possessing good-tempered animals; and there is not only superior safety, but greater utility in them; for they will consume less food, do more work, give more milk, if females, and finally fatten better, and of course be more valuable through life, and in the end.

SWIMMING.

We subjoin from an excellent little treatise on the Art of Swimming, lately published by Fowlers and Wells, 131 Nassau street, N. Y., what should occupy the attention of every boy till he has become thoroughly acquainted with the practice. Most persons find it essential, in the course of their lives, to know how to swim. This knowledge is often the sole protection of life itself; and the self-reliance, this gives to one, prevents that apprehension, which sometimes incurs "a thousand deaths in fearing one." Besides the safety thus secured when accidentally thrown into deep water, swimming often prolongs life, and imparts to it a higher zest from its inducing the healthful and luxurious pastime of frequent bathing. We say, then, to all boys, old and young, select some appropriate place, and after carefully guarding against accidents, commence and persevere in the practice till you feel as secure in the water as a duck.

AIDS IN LEARNING TO SWIM.—FIG. 57.

Aids in Learning to Swim.—Probably one of the best ways of learning to swim is to go, with a competent teacher, in a boat into deep water, this supporting the body more buoyantly than that which is shallower, and preventing the constant tendency of beginners to touch bottom; which here, of course, is impossible. The teacher should fasten a rope carefully around the waist, or, better still, to a belt, which can neither tighten nor slip down. The rope may be fastened to a short pole. Supported in this manner, the pupil may take his proper position in the water, and practise the necessary motions, and the support of the rope may be gradually lessened, until the pupil finds himself entirely supported by the water.

SWIMMING WITH A PLANK.—FIG. 58.

Swimming with a Plank.—Swimming with a plank has two advantages. The young bather has always the means of saving himself from the effects of a sudden cramp, and he can practise with facility the necessary motions with the legs and feet, aided by the momentum of the plank. A piece of light wood, three or four feet long, two feet wide, and about two inches thick, will answer very well for this purpose. The chin may be rested upon the end, and the arms used; but this must be done carefully, or the support may go beyond the young swimmer's reach.

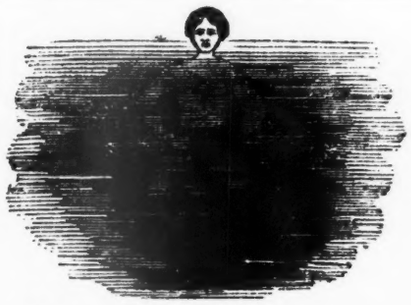
SWIMMING WITH THE ROPE.—FIG. 59.

Swimming with the Rope.—The rope is another artificial support, which has its advantages. It may be attached to a pole, fastened—and mind that it be well fastened—in the bank, or it may be attached, as shown in the engraving, to the branch of an overhanging tree. Taken in the hands, the swimmer may practise with his legs, or by holding it in his teeth, he may use all his limbs at once. The rope, however, is not so good as the plank, as it allows of less freedom of motion, and the latter might easily be so fixed as to be laid hold of by the teeth, and held securely.

PLUNGING, OR DIVING.—FIG. 60.

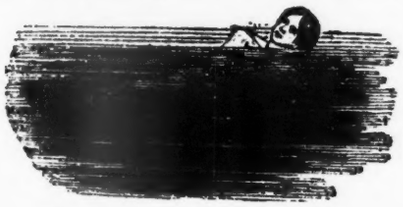
Plunging, or Diving.—In leaping into the water, feet first, which is done from rocks, bridges, and even from the yards and masts of lofty vessels, the feet must be kept close together, and the arms either held close to the side, or over the head. In diving head foremost, the hands must be put together, as in the engraving, so as to divide the water before the head. The hands are also in a proper position for striking out.

It is wonderful how easily the swimmer directs his course under water. If he wishes to go down or come up, or swim to the right or left, he has but to bend his head and body in that direction, and after a little use he will do this almost unconsciously, as if his movements were the result of volition alone.



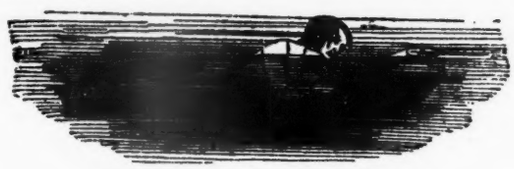
TREADING WATER.— FIG. 61.

Treading Water.—This is a favorite position in the water, and useful as a means of resting in swimming long distances. The position is perpendicular; the hands are placed upon the hips, as in the engraving, or kept close to the side, to assist in balancing the body, being moved like fins, at the wrist only. The feet are pushed down alternately, so as to support the head above water; and the body may be raised in this way to a considerable extent. While in this position, if the head be thrown back, so as to bring the nose and mouth uppermost, and the chest somewhat inflated, the swimmer may sink till his head is nearly covered, and remain for any length of time in this position without motion, taking care to breathe very slowly.



SIDE SWIMMING.—FIG. 62.

Side Swimming.—In swimming on either side, the motions of the legs have no alteration, but are performed as usual. To swim on the left side, lower that side, which is done with the slightest effort, and requires no instructions. Then strike forward with the left hand, and sideways with the right, keeping the back of the latter to the front, with the thumb side downward, so as to act as an oar. In turning on the other side, strike out with the right hand, and use the left for an oar. To swim on each side alternately, stretch out the lower arm the instant that a strike is made by the feet, and strike with the other arm on a level with the head, at the instant that the feet are urging the swimmer forward; and while the upper hand is carried forward, and the feet are contracted, the lower hand must be drawn toward the body. This method is full of variety, and capable of great rapidity, but it is also very fatiguing.



THRUSTING.—FIG. 63.

Thrusting.—This is a beautiful variety of this exercise, and much used by accomplished swimmers. The legs and feet are worked as in ordinary swimming, but the hands and arms very differently. One arm—say the right—should be lifted wholly out of the water, thrust forward to its utmost reaching, and then dropped upon the water with the hand hollowed, and then brought back by a powerful movement, pulling the water towards the opposite armpit. At the same time, the body must be sustained and steadied by the left hand, working in a small circle, and as the right arm comes back from its far reach to the armpit, the left is carrying in an easy sweep from the breast to the hip. The left arm is thrust forward alternately with the right, and by these varied movements great rapidity is combined with much ease.

SWIMMING ON THE BACK.—FIG. 64.

Swimming on the Back.—This is the easiest of all modes of swimming, because in this way a larger portion of the body is supported by the water. It is very useful to rest the swimmer from the greater exertion of more rapid methods, and especially when a long continuance in deep water is unavoidable. The swimmer can turn easily to this position, or, if learning, he has but to incline slowly backwards, keeping his head on a line with his body, and letting his ears sink below the surface. Then, placing his hands upon his hips, he can push himself along with his feet and legs with perfect ease, and considerable rapidity.

The hands may be used to assist in propelling, in this mode, by bringing them up edgewise towards the arm pits, and then pushing them down, the fingers fronting inward, and the thumb part down. This is called "winging."

The hands may be used at discretion, the application of force in one direction, of course, giving motion in the other; and the best methods are soon learned when once the pupil has acquired confidence in his buoyant powers.

FLOATING.—FIG. 65.

Floating.—This is so useful a part of the art of swimming, that it cannot be too soon obtained. In salt water, nothing is easier; and in fresh, to most persons, it requires but the slightest exertion. The feet should be stretched out, and the arms extended upward, so as to be at least as high as the top of the head, and under water. The head must be held back, the chin raised, and the chest expanded. The hands will easily keep the body in this horizontal position, and, by breathing carefully, a person may float at ease for hours. Could a person, unable to swim, but have the presence of mind to take this position, he could never drown.

FOREIGN AGRICULTURAL NEWS.

By the steamer Caledonia, we are in receipt of our foreign journals to July 7th.

MARKETS.—The transactions in *Cotton* were large at an advance of $\frac{1}{8}d.$ per lb. *Wheat*, a small advance. *Indian Corn*, a trifling decline. Other articles of American produce firm and in good demand.

Money, very plenty, at 2½ to 3 per cent.

Remedy for Mildew on Grapes.—Fine sulphur, strewed around the vines, will kill, or prevent, mildew, if early applied.—*Gardeners' Chronicle.*

Lime Water.—Take a quantity of fresh-burnt lime pour over it 20 or 30 times its measure of water. Stir them well together; then let the lime settle, and pour off the clear fluid, which is lime water. This will kill slugs and worms, if poured over them, but will not injure the plants.—*Ib.*

Top-Dressing for Wheat.—One cwt. of nitrate of soda, and one cwt. of sulphate of ammonia, per acre, sown broadcast, in wet weather, will give a most luxuriant foliage and abundant yield.—*Ib.*

To Preserve Green Peas for Winter Use.—To preserve green peas for winter use, they should be dried in a cool oven, and hung up in paper bags.—*Ib.*

State of the Crops in Ireland.—The harvest prospects, in Ireland, which now engage the anxious attention of all classes, afford ground for hope that with abundant crops, the country may begin to recover from the utter prostration resulting from the total exhaustion of its resources during a protracted famine. There is not a single exception, in the accounts to the general report of the highly favorable progress of the crops of all kinds, including potatoes. There is a great breadth of wheat in the southern and midland counties, which is described as thick, high, and full, with all the appearance of health and vigor.

Acorns in Spain.—The acorns, in Spain, are still called *bellota*, the Arabic *bollot—belot* being the scriptural term for the tree and the gland which, with water, formed the original diet of the aboriginal Iberian, as well as of his pig. When dry, the acorns were ground, say the classical authors, into bread; and when fresh, they were served up as the second course. And in our time, ladies of high rank at Madrid constantly eat them at the opera and elsewhere. These were the presents sent by Sancho Panza's wife to the Duchess; and formed the text on which Don Quixote preached so eloquently to the goat herds, on the joys and innocence of the Golden Age and pastoral happiness, in which they constituted the foundation of the kitchen.—*Ford's Gatherings in Spain.*

A New Variety of Honeysuckle.—There is now in full flower, at Fortune Cottage, near Garstang, belonging to Mr. Tongue, a most splendid new variety of honeysuckle, which he has obtained by hybridizing. It is supposed to be the most splendid private collection in Europe, comprising, at present, 6,000 plants, all growing upon the surface. They appear like one complete mass of flowers, and they have cost him upwards of five years' labor in bringing them to their present perfect state.—*Mark-Lane Express.*

Management of Manure.—All manure made before winter may be plowed under in its long and strawy condition, provided the land be clean; but spring-made manure must be at least twice turned, first, in the operation of removing it from the yards to heaps; and secondly, once in the heap, a fortnight or so before use. The economical farmer will endeavor to diminish the loss during the rotting process, by covering the heaps with earth so far as that is possible. The use of cut litter is not economical of straw.—*Ib.*

Pruning Beans.—The "London Agricultural Gazette" believes it to be advantageous to cut off the tops of beans, after they have fully flowered.

A New Remedy for the Potato Disease.—In a Belgian newspaper appears a circular dispatch, which has been lately addressed by the Minister of the Interior to the governors of provinces in that country, wherein it is recommended that "when the haulm is full grown, that is to say, shortly after flowering, the stems should be cut down to the ground carefully, so as not to disturb the tubers, and the soil then covered about an inch deep with earth, so as to keep them from contact with the air. This layer to remain till the tubers are ripe. A. M. Tombelle-Lomba, a farmer of Namur, asserts that, by adopting this plan, his potatoes are every year as good as they were before the appearance of this disease.

Application of Liquid Manure.—To apply liquid manure with advantage, a little ordinary care is required. It should always be borne in mind, that, during warm and dry weather, plants absorb fluids faster than when it is dull and cool, and that they perspire most in a dry warm atmosphere. If the supply at the root, therefore, is not kept up, then they become deteriorated in quality, and the produce is considerably lessened. The common practice of pouring manure water immediately around the stem of a plant, should be avoided, for two reasons; first, the roots which absorb most are in, or approaching, the centres of the spaces between the rows; therefore, to be benefited by it, the liquid should be distributed there. Another very important matter, in common with vegetable culture, should not be lost sight of; by applying the liquid in a limited circle round the plants individually, the roots have less inducement to travel far in search of food; hence, they are fewer in number. But if their food is placed at a greater, yet reasonable distance from them, they will seek it out, fresh roots will be emitted, and they will have a much larger field to feed in.—*Agricultural Gazette.*

Produce of Guernsey Cows.—The following is the produce of five Guernsey cows, in one year, as given in the last Annual Report of the Proceedings of the Royal Agricultural Society of Guernsey:—

	£	s.	d.
Butter, 1,340 lbs.; sold on an average at 1s. 3½d. per lb.,	86	10	10
Milk sold,	4	3	3
One fat bull calf,	2	8	10
Four heifer calves,	3	0	0
Churned milk, at 1s. per gallon,	11	3	0
	£107	5	1

How to Make Guano.—A gentleman, walking on the beach, in the vicinity of Harwick, observed a man busily engaged with a pickaxe, raising a material from the lower part of the cliff, and on asking him his employment, was told "he was raising stones for manure." This rather puzzled our friend, who became more minute in his inquiries. The man observed:—"These, which look like stones, are crystallized fish, and, although very hard now, will, when put through a mill, crumble to powder. My master ships a great quantity of it to London, there to be ground, and then mixed with guano to give it weight. —*English Paper.*

Soot and Brick Dust as Medicine for Poultry.—Soot is a very ancient remedy among old-fashioned housewives, actually possessing aperient and active properties. Red brick dust has also peculiar effects, as well as small pebbles and sand, which poultry will sometimes eagerly devour. These act as triturents in the esophagus, and aid in the quicker dispersion of bile amongst the crude matters the fowls contain. Calcareous substances are required for the formation and excretion of the material composing the egg-shell. If deprived of the above-named substances, the birds pine away and die.

Editors' Table.

THE NEXT ANNUAL FAIR OF THE N. Y. STATE AGRICULTURAL SOCIETY.—At a late meeting of the Executive Committee of this society, the Secretary reported, that, since the last meeting previous, he had visited Syracuse, and that the citizens were taking active measures to prepare the grounds and buildings for the use of the society in September A contract for enclosing the grounds, and preparing the necessary erections, has been made with an efficient and thorough business man; and everything required by the society, it is believed, will be in readiness. The Committee of Arrangements, in behalf of the citizens, are making every possible effort for the accommodation of visitors; and nothing, on their part, will be left undone to accommodate those who may be in attendance. The Secretary also reported, that the judges who had been appointed for the annual exhibition had, with very few exceptions, signified their acceptance, and the few vacancies had been supplied by gentlemen who had agreed to be present. At no former period have the indications of a large exhibition, in all the departments, been so encouraging as at the present.

SALE OF HEREFORD CATTLE AND MERINO SHEEP.—We desire to call particular attention to the advertisements in this number of our paper, of Messrs. Bingham & Brothers. We have seen the progenitors of their cattle and sheep, and know them to be first-rate animals of their kind. From their well-known intelligence, we have no doubt they have bred them with care, and we are of opinion the public may implicitly rely on their statements in regard to them.

POSTPONEMENT OF THE OHIO STATE FAIR.—In consequence of the prevailing epidemic, in Cincinnati and its vicinity, the Ohio State Agricultural Fair is postponed until another year.

HONORS TO AN AMERICAN, FROM ABROAD.—Dr. Charles T. Jackson, of Boston, has lately received the beautiful Cross of the Legion of Honor, conferred on him by the President of the French Republic, in consequence of his high scientific attainments, and *for having made the discovery of etherization*, a distinction, it is believed, that no other American ever received. Bonpland, the celebrated traveller and naturalist, and the associate of Baron Humboldt, in South-American travels, together with several other individuals of eminence, received the order of knighthood at the same time. Dr. J. has also received from the king of Sweden a splendid gold medal, as a testimony of the respect in which his character and scientific services are held by that monarch.

RAVAGES OF THE ARMY WORM.—We learn that the army worm is very destructive in the southern part of Illinois, as well as in Missouri.

DISINFECTING AGENT.—The best disinfecting agent is nitrate of lead. One ounce, dissolved in one pint of water, is equal in strength, as a disinfecting agent, to the same quantity of concentrated solution of chloride of lime. It is, at the same time, the cheapest that can be used. About a table-spoonful, poured into a chamber, will remove the smell instantaneously; a handkerchief or towel, saturated with it, and hung up in a room, will remove any unpleasant odor that may exist at any time.

MARCH OF MIND.—There is a farmer in this state, who, entertaining the opinion that iron plows "pizen" the earth, and injure crops, has cast them off, and procured the pod-auger pattern—all wood—and heavy as half a shedful of the ordinary run of farmers' tools. The same farmer, having an active young man in his service, who had acquired some knowledge from books, peremptorily discharged him, because the young man stoutly persisted in asserting that the earth went round the sun, while the farmer held the contrary. He would not have folks with him whose heads were full of such nonsense.—*N. H. Statesman.*

FENCE POSTS.—A practical farmer informs the Hartford Times, that in taking up a fence that had been set fourteen years, he noticed that some of the posts remained nearly sound, while others were rotted off at the bottom. On looking for the cause, he found that those posts that were set limb part down, or inverted from the way they grew, were sound. Those that were set as they grew, were rotted off. This fact is worthy the attention of farmers.

GENERAL WASHINGTON'S FARM.—The farm of Gen. Washington, at Mount Vernon, contained ten thousand acres of land in one body, equal to about fifteen square miles. It was divided into farms of convenient size, at the distance of two, three, and five miles from his mansion house. These farms, he visited every day, in pleasant weather, and was constantly engaged in making experiments for the improvement of agriculture. Some idea of the extent of his farming operations may be formed from the following facts:—

In 1787, he had five hundred and eighty acres in grass; sowed six hundred bushels of oats; seven hundred acres with wheat, and as much more in corn, barley, potatoes, beans, peas, &c., and one hundred and fifty with turnips. His stock consisted of one hundred and forty horses, one hundred and twelve cows, two hundred and thirty-six working oxen, heifers, and steers, and five hundred sheep. He constantly employed two hundred and fifty hands, and kept twenty-four plows going during the whole year, when the earth and the state of the weather would permit. In 1786, he slaughtered one hundred and fifty hogs, for the use of his family, and provisions for his negroes, for whose comfort he had great regard.—*Exchange.*

A PORTRAIT OF AN ANTI-BOOK FARMER.—He plows three inches deep, lest he should turn up the poison that, in his estimation, lies below; his wheat land is plowed so as to keep as much water on it as possible; he sows two bushels to the acre and reaps ten, so that it takes a fifth of his crop to seed his ground; his corn land never had any help from him, but bears just what it pleases, which is from twenty to twenty-five bushels, by measurement, though he brags that it is fifty or sixty. His hogs, if not remarkable for fattening qualities, would beat old Eclipse at a quarter race; and were the man not prejudiced against deep plowing, his hogs would work the ground better with their prodigious snouts, than he does with his jack-knife plow. His meadow land yields half a ton to a whole ton of hay, which is regularly spoiled in curing, regularly left out for a month, regularly stacked up, and left for the cattle to pull out at their leisure, and half eaten and trampled under foot. His horses would excite the avarice of an anatomist in search of osteological specimens; and returning from their range of pasture, they are walking herbariums, bearing specimens in their mane and tail of every weed that bears a cockle or burr. But oh! the cows, if held up in a bright day to the sun, don't you think they would be semi-transparent? But he tells us good milkers are always poor! His cows get what providence sends them, and very little besides, except in winter; then they have half a peck of corn, the ears a foot long, thrown to them, and they afford lively spectacles of animated corn and cob crushers. Never mind, they yield, on an average, three quarts of milk per day, and that milk yields varieties of butter quite astonishing!—*Buffalo Paper*

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JULY 18, 1849.

ASHES, Pots,	per 100 lbs.	$5 50	to	$5 63
Pearls,	do.	5 62	"	5 75
BALE ROPE,	lb.	9	"	11
BARK, Quercitron,	ton,	28 00	"	30 00
BEANS, White,	bush.	75	"	1 25
BEESWAX, Am. Yellow,	lb.	19	"	22
BOLT ROPE,	do.	11	"	12
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	25
Shipping,	do.	9	"	15
CANDLES, Mould, Tallow,	do.	10	"	13
Sperm,	do.	25	"	40
Stearic,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2,000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	13
COTTON,	do.	6	"	10
COTTON BAGGING, Amer. hemp,	yard,	15	"	16
FEATHERS,	lb.	30	"	40
FLAX, American,	do.	8	"	9
FLOUR, Northern, Southern and West'rn	bbl.	4 12	"	5 00
Fancy,	do.	5 50	"	6 25
Richmond City Mills,	do.	6 75	"	7 00
Buckwheat,	do.	—	"	—
Rye,	do.	3 00	"	3 06
GRAIN—Wheat, Western,	bush.	1 05	"	1 30
Red and Mixed	do.	75	"	1 05
Rye,	do.	56	"	57
Corn, Northern,	do.	58	"	60
Southern,	do.	55	"	59
Barley,	do.	52	"	55
Oats,	do.	29	"	40
GUANO, Peruvian	2,000 lbs.	47 00	"	50 00
" Patagonian	do	30 00	"	35 00
HAY, in bales,	do	36	"	45
HEMP, Russia, clean,	ton.	210 00	"	220 00
American, water-rotted,	do.	160 00	"	220 00
American dew-rotted,	do.	140 00	"	200 00
HIDES, Dry Southern,	do.	8	"	9
HOPS,	lb.	4	"	12
HORNS,	100.	2 00	"	10 00
LEAD, pig,	do.	4 60	"	4 63
Pipes for Pumps, &c	lb.	5	"	7
MEAL, Corn,	bbl.	2 94	"	3 12
Corn,	hhd.	13 75	"	14 00
MOLASSES, New Orleans,	gal.	20	"	26
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 75	"	2 00
Pitch,	do	1 25	"	1 75
Rosin,	do.	86	"	95
Turpentine,	do.	2 31	"	2 62
Spirits Turpentine, Southern,	gal.	32	"	33
OIL, Linseed, American,	do.	58	"	60
Castor,	do.	1 50	"	1 60
Lard,	do.	60	"	70
OIL CAKE,	100 lbs.	1 00	"	1 50
PEAS, Field,	bush.	75	"	1 25
Black-eyed,	2 do	1 50	"	1 75
PLASTER OF PARIS,	ton.	2 00	"	2 75
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	9 00	"	13 50
Prime,	do.	5 00	"	8 50
Smoked	lb.	6	"	12
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	10 00	"	13 00
Prime,	do.	7 00	"	10 50
Lard,	lb.	6½	"	7½
Bacon sides, Smoked,	do.	3	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	5	"	9
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	5
Pickled,	do.	3	"	4
RICE,	100 lbs.	2 88	"	3 62
SALT,	sack,	1 17	"	1 30
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	5½	"	7
Timothy,	bush.	2 00	"	3 50
Flax, clean	do.	1 30	"	1 40
rough,	do.	1 20	"	1 30
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	—
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	4	"	6
SUMAC, American,	ton,	35 00	"	37 00
TALLOW,	lb.	7	"	8
TOBACCO,	do.	3	"	8
WHISKEY, American,	gal.	23	"	25
WOOLS, Saxony,	lb.	35	"	60
Merino,	do.	25	"	35
Half-blood	do.	20	"	25
Common do	do.	18	"	20

NEW-YORK CATTLE MARKET.

At Market.—1,150 Beef Cattle, (1,300 southern, the remainder from this state and east,) 65 Cows and Calves, and 4,500 Sheep and Lambs.

Beef Cattle.—The market for Beeves has been rather dull, as the prices show a decline, when compared with our last. Sales of good retailing qualities at from $6 to $7.75 per hundred. The number of head on hand, unsold, is estimated at 1,500.

Cows and Calves.—These vary from $20 to $45. Unsold, 15

Sheep and Lambs.—Sheep sold at $1.50 cents to $4.50 each; Lambs at $1 to $3.75. The number left unsold, 50.

REMARKS.—Prices have scarcely altered since our last. Large quantities of produce continue to be shipped abroad. It is said that Great Britain and Ireland are taking even more of us now than during the year 1847. We observe that the importations of grain into the United Kingdom have averaged about four and a half millions of bushels per month, since the first of January last.

Crops.—With the exception of Indiana, and a few other sections, the wheat crop proves more than an average. Rye is remarkably good; Hay, an unusually large crop; Barley and Oats promise well. The Root crops are suffering from the drought, in many parts of the country. Corn will be a great crop in the south; at the north it is too early yet to speak of it. Cotton is more promising than was expected, though the terrible late frosts were very destructive. Sugar, Rice, and Tobacco look well.

The Cholera still prevails to an alarming extent, in all parts of the country open to foreign immigration. Its principal destruction is among the poorer class of immigrants. The native population is suffering but very little. It is hoped, ere another month has closed, it will nearly subside.

TO CORRESPONDENTS.—Communications have been received from A. L. Elwyn, W. D., Thomas S. W. Mott, R. W. Thompson, Thomas Ewbank, J. M. de la Torre, J. McKinstry, S. Boyd, and Reviewer.

ACKNOWLEDGEMENTS.—Annual Report of the Seneca-County, (N. Y.,) Agricultural Society, for the year 1848; The Water-Cure Journal, from Fowlers and Wells; and an Agricultural Circular from the Commissioner of Patents. Also, a Box of Poudrette, from Dr. S. Boyd, of Brooklyn, as prepared by Samuel Maynard, by means of Le Doyen's Disinfecting Fluid.

VIRGINIA LANDS.

THE attention of Northern Farmers who wish to purchase in Fairfax County, Va., is invited particularly to two farms for sale, three miles east from Fairfax Court House, thirteen from Alexandria, and fourteen from the city of Washington. There are no buildings on either tract, but, by following the custom of the country, comfortable and temporary ones can be cheaply built. The soil is well adapted to farming purposes, and there is timber on them, near two sawmills.

These farms would sell in the north, for from $50 to $100 per acre, and can be bought here in a more pleasant and healthy climate, one for eight, the other for ten dollars per acre, on easy terms, and a good title given.

Further information given, if requested, by T. R. Love, trustee, either personally, or by letter, (postage paid,) directed to Fairfax Court House, Va.

f. tf. H. FULLER.

STATIONERY, BLANK BOOKS, AND PAPER.

Francis & Loutrel, No. 77 Maiden Lane, N. Y.,

MANUFACTURE all kinds of Blank Books and Stationery articles—Diamond Point Gold Pens—Letter Copying Presses—Manifold Letter Writers—superior Croton Ink, warranted to retain its jet-black color, which they sell at the very lowest prices.

We have also on hand every description of Foreign PAPER and STATIONERY—Cap, Letter, and Note Papers, Envelopes, Perforated Board, Bristol Board, Drawing Papers—Copy Books, Pocket Books, Card Cases, Port Folios, Scrap Books—Gold Paper, Tissue Paper—Chess Men, Backgammon Boards—Wax, Wafers, Slates, Pencils—Gold and Silver Pencil Cases—Writing Desks—Work Boxes—Quills—Tin Cash and Deed Boxes—and all articles kept by Stationers, at remarkably low prices.

Books suitable for County Clerks and Public Offices supplied.

Printing, Ruling, and Binding executed at the lowest rates.

☞ We should be pleased to have a call from those requiring articles in our line. Orders by mail will receive attention.

LEWIS FRANCIS, } FRANCIS & LOUTREL,
CYRUS H. LOUTREL, } *Stationers, 77 Maiden Lane, N. Y.*
Sept.1yr*.

AYRSHIRE HEIFERS.

WANTED by the last of October next, two Ayrshire Heifers, from six to eight months old. They must be from approved milking families. Please to state price, delivered in this city.

Jy 3t SAMUEL ALLEN, 189 & 191 Water st., N. Y.

COMMERCIAL GARDEN AND NURSERY.

PARSONS & CO., at Flushing, near New York. The proprietors of this establishment invite public attention to their large assortment of every desirable variety of Fruit and Ornamental Tree or Shrub. Their importations of everything new in Europe are annually continued, and they offer a very large variety of Ornamental Trees and Shrubs imported expressly for arboretums and pleasure grounds. Their collection of Roses is annually enriched by novelties from abroad, many of which may be found described in their new work on the Rose, recently published. Fruit Trees receive their particular attention, and are propagated under their personal supervision; this care, with their possession of extensive specimen grounds, in which is tested every variety of fruit they cultivate, enables them confidently to guarantee the genuineness of the varieties.

Their care in pruning and cultivation enables them also to send out thrifty and well-formed trees. From their large scale of propagation, they can offer to dealers very liberal discounts, where hundreds or thousands are taken. Orders or inquiries can be addressed to the proprietors at Flushing, near New York, where catalogues will also be furnished. They have established a Branch at Brighton Depôt near Boston and by the entire success of their trees transplanted thither have thoroughly proved the superior adaptation of Long-Island Trees to the soil and climate of any part of New England. This they attribute to the perfect maturity attained by the wood before frost, which renders the trees suitable for transportation to any latitude.

At the season of transplanting, a salesman will be at their Brighton Branch to furnish those who may prefer obtaining their supply thence. mhtf

NEW-OXFORDSHIRE LONG-WOOLED BUCKS.

FOR SALE, 30 or 40 bucks of this well-known flock, at any time gentlemen may please to call, as the subscriber has determined not to hold another annual sale. To those unacquainted with the quality of these sheep, it may be necessary to remark that they will shear from 9 *to* 14 *pounds of washed wool*, and when full fatted, weigh 300 *pounds*, and that they are bred from some of the best long-wool sheep ever imported, which were selected by the subscriber from an English prize flock. CLAYTON B. REYBOLD,

jy 3t Delaware City.

VIRGINIA FARM

FOR SALE, within 16 miles of Richmond West, on James River, known as "Claremont," and containing 253 acres more or less. The James-River and Kanawha Canal runs through the property. The selection is one of the most lovely and pleasant on the river, commanding a splendid view of the surrounding country. The land is mostly yellow clay bottom and well adapted to wheat, Indian corn, Irish potatoes, and oats. There is a fine orchard of apples, pears, cherries, and peaches. The buildings are mostly new. The dwelling has about ten rooms all newly done up in first-rate style, good water all about the premises. The canal boats passing every hour, offer a cheap conveyance for all kinds of produce. There are two churches, a school, a tavern, physician, and Post Office all near. And there is a market on the border of the farm for all meats, vegetables, eggs, butter, &c. It also affords a fine stand for a country store, a crop now on the place. Terms easy. Apply, post paid, to

jy 1t* B. B. ALLEN, 19 Platt st., N. Y.

PATENT FANNING MILLS AND GRAIN CRADLES.

GRANT'S celebrated Fanning Mills and Grain Cradles have been awarded six first premiums at the New-York State Fairs; also, at the American Institute of New York and several County Fairs. Wherever exhibited, they have taken the first premium over all other mills. The great encouragement we have received from dealers and agriculturists has induced us to enlarge our business. All orders will receive prompt attention. J. T. GRANT & CO.,

Junction P. O. Rens. Co., N. Y., 8 miles north of Troy.

The above mills are also for sale by A. B. ALLEN & CO., 189 & 191 Water street, New York. my 6t

ALLEN'S FARM BOOK.

SEVENTH EDITION; Enlarged.

THE AMERICAN FARM BOOK, or compend of American Agriculture; being a practical treatise on soils, manures, draining, irrigation, grasses, grain, roots, fruits, cotton, tobacco, sugar cane, rice, and every staple product of the United States, with the best methods of planting, cultivating, and preparation for market. Illustrated by more than 100 engravings. By R. L. Allen, author of Diseases of "Domestic Animals," and editor of the "American Agriculturist;" together with Browne's Memoir on Indian Corn, including Barlow's celebrated Poem. Published and for sale by

C. M. SAXTON, 121 Fulton st., N. Y.

SALE OF HEREFORD CATTLE.

THE MESSRS. BINGHAM, of Vermont, brothers, propose to sell at public auction, on the show-ground of the New-York State Fair, at Syracuse, from 10 to 20 head of Hereford cattle, 3 years old and under—bulls and heifers. Our cattle were purchased of Messrs. Corning and Sotham, three years ago. We have been disposed to give these cattle a fair trial, to see what their merits would prove to be, before offering them to the public. We have come to the conclusion, that no race of cattle can compete with them, when all their good qualities are taken into consideration. We are resolved to push ahead in the cultivation of the Herefords, as being a race affording most profit for keep and care, and proving themselves first-class cattle for all the purposes of the breeder. They make a noble cross with the shorthorns, as well as with the native stock, showing a great and decided improvement. We offer these cattle to the public, under the strong conviction that they will prove a valuable acquisition to any herd.

—

PURE-BRED MERINO SHEEP.

WE shall also offer, at private sale, a large lot of pure-bred Merino sheep, from imported sires. The breeders of sheep will do well to look over our flocks before purchasing elsewhere. We sell no grades, or mongrels—worthless sheep—for great prices; but we mean to deal fairly with those who purchase of us, and sell them our best blood for fair remunerating prices; so that our sheep shall prove a decided improvement to the flocks with which they may be placed.

L. G. BINGHAM & BROTHERS,

au 1t Williston, Vt.

FARM FOR SALE.

THE Dairy Farm of 200 acres, belonging to David S. Mills, at Newtown, L. I., upon which he now resides, is offered for sale—the whole, or in parcels. The well-known reputation of the above farm furnishes fully its character and advantages, it being second to none in the Union; also, the entire stock, &c., belonging to the same. For terms, apply to David S. Mills, on the premises, 5 miles from Williamsburgh, Ferry, on Jamaica turnpike road, or to H. Meigs, American Institute, N. Y. au 6t

CHINESE PIGS.

THE Subscriber has for sale, at the foot of 79th street, East River, a few Chinese pigs, raised from stock imported per ship Zumchi, Captain Canfield, from Canton, in April 1848, and selected for the purpose of improving the stock in this country.

au 1t WILLIAM CAIRNS.

HORSE POWERS.

THE Subscribers have a great variety of the best Horse Powers constantly on hand for sale, which are adapted to every purpose.

The rim, or taplins, 18 to 20 feet diameter, to work with from one to six horses, wrought-iron cogs, with steel pinions, and all of wrought iron and wood.

The endless-chain, inclined-plane, or railroad power, compact and efficient to work with either one or two horses.

The Bogardus iron, one to four horse power. See cut and description, page 209 of the present volume.

Warren's iron, for one or two horse power.

Trimble's do., for two and four horses.

A. B. ALLEN & CO.,

au 3t 189 & 191 Water street, New York.

PERUVIAN GUANO.

The undersigned has made arrangements with A. B. Allen & Co., of New York, by which he is enabled to offer unusual facilities to farmers who may wish to obtain a supply of guano for the next crop of wheat. It will be delivered either at Richmond or Petersburg, and furnished at the lowest prices at which it can be afforded. The high reputation of those gentlemen is a sufficient guarantee that none but the best article will be sent from their house. All inquiries will be promptly responded to. THOS. S. PLEASANTS,

au 2t Petersburg, Va.

A HISTORY OF WONDERFUL INVENTIONS.

ILLUSTRATED WITH NUMEROUS ENGRAVINGS ON WOOD.

Price, 75 cents.

"THIS is a capital book, capitally illustrated by wood cuts. The compass, gunpowder, gun cotton, printing, gas, steam, electricity, time and weather guages, and all the other most remarkable elements which guide and rule the world, in our age, are well explained and described."—*London Literary Gazette.*

HARPER AND BROTHERS,

82 Cliff street, N. Y.

PERUVIAN GUANO

FOR Sale, at Bating Hollow, Long Island, by

jy3t AZEL DOWNS.

WHEELER'S PATENT IMPROVED PORTABLE RAIL ROAD HORSE POWER AND OVERSHOT THRASHER AND SEPARATOR.

THE advantages of the above horse powers are—1. They occupy but little more space than a single horse. 2. They can be moved by the weight of the horse only, by placing them at an angle of 10 or 15 degrees. 3. They are comparatively light and portable, and can be easily transported. 4. They are simply constructed, not liable to get out of order, and move with little friction, the revolving plane geering without any complex or intermediate wheels, directly into the pinion upon the shaft on which the pully belt runs.

The Threshers consist of a small spiked cylinder with a concave plane over it, and a level feeding table. There are several improvements in the overshot threshers. 1. They admit of a level table for feeding, thus enabling the tenders to stand erect, and control the motion of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, heavy substances such as stones, blocks &c., drop at the end of the table, and are not carried between the spikes, by which they and the machine are broken. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is longer, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by those in the concave, which is stationary. 7. The separator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men, with a single power, can thresh 75 to 100 bushels of wheat or rye; or four men with a double power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day. All the above are compact and can be carried where wanted complete, or they may be readily taken apart and packed for distant transportation by a wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Separator and fixtures,	$7
" Bands for driving, etc.,	$5
" Sawmill, complete, and in running order,	$35

The price of the double power, thresher, separator, &c., complete, is $145, including rights of using. The above are sold singly or together as desired.

The above power is warranted to work well and give satisfaction.

Among the large number who have purchased the above-named horse powers of us, we would enumerate the following:

E. H. Haight	New-York City.
Edward Dunn	" " "
A. C. Munson	" " "
T. C. Winthrop	" " "
Wm. S. Mc Coun	" " "
Thos. F. Young	" " "
G. I. Slocum	Cohooes, N. Y.
P. P. Swartwout	Port Jarvis, N. Y.
J. H. Anderson	White Plains, N. Y.
D. B. Campbell	Schenectady, N. Y.
S. S. Howland	Dobb's Ferry, N. Y.
James Wilson	Port Chester, N. Y.
L. Onderdonk	West Chester, N. Y.
Lawrence Davenport	New Rochelle, N.Y.
G. Butler	Fordham, N. Y.
Thos. W. Carpenter	Harrison, N. Y.
A. Gregory	Liberty, Sullivan Co.
N. A. Topping	Phillips Port, Sul. Co.
Wm. Silliman	Tuckahoo
Samuel Decker	Staten Island.
David Brown,	" "
Mr. Taylor Perrine	" "
Mr. Barton	" "
James M. Cross	" "
C. Cox	" "
J. C. Garretson, 2 sets of Horse Powers	" "
Mr. Guion	" "
Mr. Parkerson	" "
D. Latourette	" "
C. Mc Lean	" "
D. L. Clawson	" "
James M. Brush	Huntington, L. I.
Tho's P. Craven	Boundbrook, N. J.
John Burke	" "
E. Merrill	Belville, N. J.
Mr. Maynard	N. Brunswick, N. J.
R. A. S. Johnson	" "
Henry Talcott	Hartford, Ct.
R. S. Griswold	Lyne, Ct.
N. B. Weed	Darien, Ct.
Lewis Reymond	Lewisboro, Ct.

A. B. ALLEN & CO., 189 and 191 Water street.

FITZGERALD'S PATENT FLOUR AND GRAIN MILLS.

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